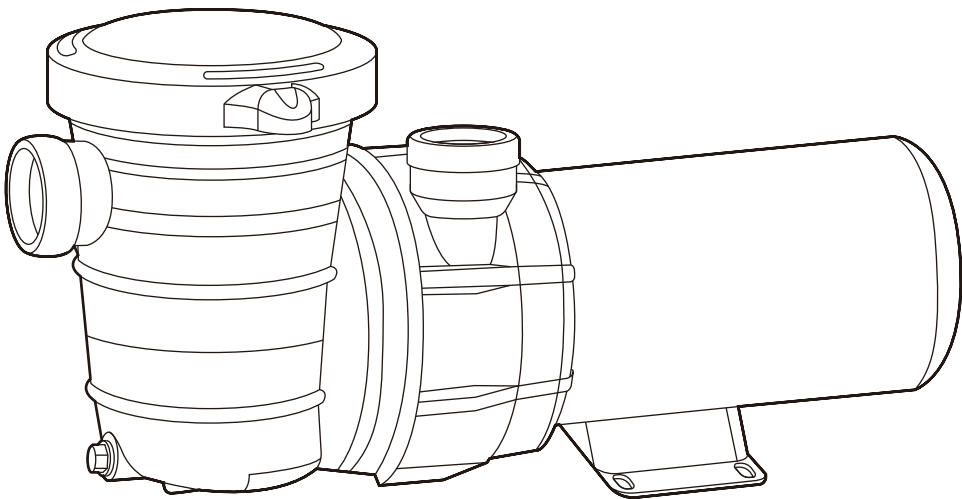


Dual Speed Above Ground Swimming Pool Pump

Instruction Manual



THIS INSTRUCTION BOOKLET CONTAINS IMPORTANT SAFETY INFORMATION.
PLEASE READ AND SAVE IT FOR FUTURE REFERENCE.

READ CAREFULLY AND SAVE THIS INSTRUCTION MANUAL






TO USER/INSTALLER/OPERATOR – THIS USER MANUAL INCLUDES KEY POINTS AND IMPORTANT SAFETY INSTRUCTIONS ON USING THIS PRODUCT, READ AND FOLLOW ALL INSTRUCTIONS. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH. SAVE THESE INSTRUCTIONS.

SAFETY PRECAUTIONS





Read this "Safety Precautions" before operation.

The below information should not be neglected for the proper use of this product. Following all instructions can help the user avoid potential danger.









The information below is very important for safety while handling this product.
Be sure to observe them carefully.

 DANGER	Indicates an imminently hazardous situation that will result in death or serious injury if not avoided
 WARNING	Indicates a potentially hazardous situation that will result in death or serious injury if not avoided.
 CAUTION	Indicates a potentially hazardous situation that will result in minor or moderate injury or property damage if not avoided.
IMPORTANT	 PROHIBITED  ALERT




DANGER

	Keep away from the main drain and all suction outlets.
	The pump lid must be properly secured to prevent violent separation due to pressure in the circulation system.
	Before servicing, turn the power supply off and stop the system circulation, open the air relief valve and release all the pressure.
	It is highly recommended that this product be installed and serviced by a qualified pool professional.





WARNING

	Remove the plugs of the pool/spa from the suction outlets to avoid the potential for suction entrapment.
	To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
	Before starting, all system valves must be in a position that will allow pool water to return back to the pool.
	Make sure all components of the circulation system are in good condition and assembled properly before operating the circulation system.
	Before working on any electrical equipment, turn off the power supply to the equipment.
	Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit interrupter (GFCI). Contact a qualified electrician if you cannot verify the circuit protected by a GFCI.
	The unit must be connected only to a supply circuit that is protected by a ground-fault circuit interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.
	Replace the damaged cord immediately to reduce the risk of electric shock.

CAUTION

	All electrical wiring must be in conformance with the local code and National Electric Code (NEC).
	Though this pump is designed for outdoor use, it is strongly advised to keep the pump from direct sunlight for a longer lifespan.
	Install this pump in a place with good drainage.

CAUTION

	Make sure the surrounding of the pump is ventilated to reduce the probability of overheating.
	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 it 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 is capable of being readily disassembled for storage and reassembled to its original integrity.
	Do not install this pump in a damp location.
	Do not run the pump dry. Failure to do so will damage the mechanical shaft seal and result in leakage and flooding. Fill the strainer housing with water before running the pump.

INSTALLATION

Before servicing, turn the power supply off and stop the system circulation, open the air relief valve and release all the pressure.

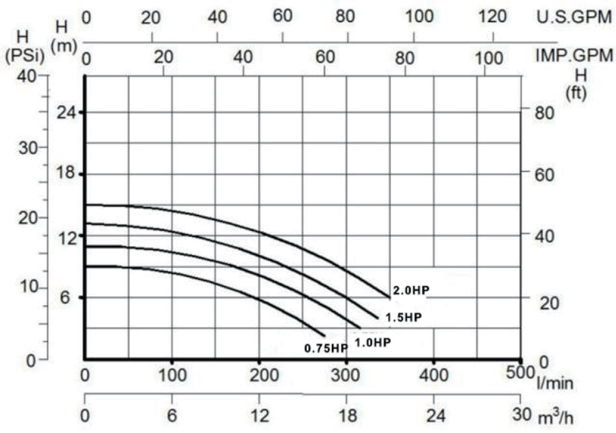
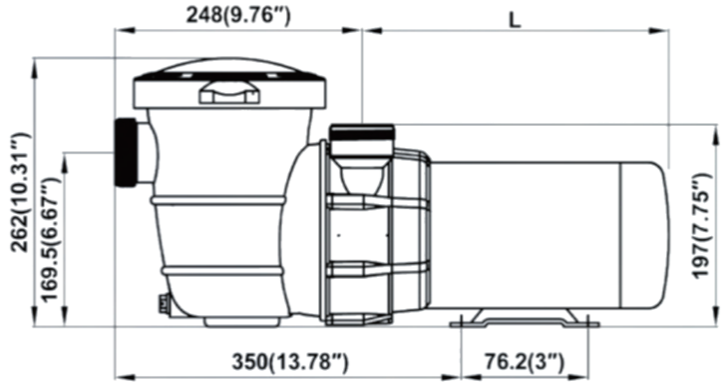
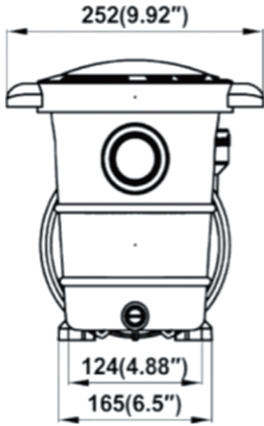
WARNING: This product should be installed and serviced by a qualified pool professional.

Try to install this pump as close as possible to the swimming pool. Plumbings with fewer joint and elbow pipes are better for good suction. It is highly recommended that locate the pump in a cool, dry place without direct sunlight for a longer lifespan. Install the pump on a firm-level surface to meet all local and national codes. Fix the pump on the base with bolts to reduce vibration. It is also highly recommended to install a check valve on the pipe near the inlet port so that no priming is required when the pump restarts after that.

Warning: Prevent foreign matter from entering the pump through the inlet. Failure to do so will result in damage to the pump.

Warning: Keep product away from Children.

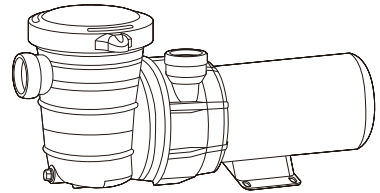
Use Teflon tape on the thread before screw fittings to pump inlet and outlet ports so as to avoid leakage. Do not over-tighten the fittings.



HP	0.75	1.0	1.5	2.0
L	11.50"(292mm)	11.77"(299mm)	12.01"(305mm)	12.76"(324mm)

The discharge port of the pump can be turned to horizontal:

- Remove the pump strainer lid and filter basket.
- Remove clip-bayonet (part# 4 in the parts list).
- Remove the pump strainer body from the pump housing.
- Unscrew the 8 bolts.
- Turn the discharge port to horizontal.
- Screw back the 8 bolts.
- Re-install the pump strainer body.
- Buckle up the clip-bayonet.
- Put the filter basket back into the pump strainer body.
- Fasten the pump lid



Make sure that the electrical supply available is suitable for the motor's voltage, phase, and cycle. Voltage from the power must be in the range of 90% to 110% of the motor nameplate-rated voltage. Otherwise, the motor may overheat and result in overload tripping and reduced component life.

Install, ground, bond, and wire motor in accordance with local or NEC requirements. The motor should be grounded permanently by connecting the ground terminal to the electrical service ground.

Bond motor to pool structure. Bonding will connect all metal parts within and around the pool with a continuous wire. Bonding reduces the risk of current passing between bonded metal objects, which could potentially cause electrical shock if grounded or shorted.

PRIMING

Fill the strainer housing with water, make sure no air or water leaks from anywhere in the pump, and keep the operator at least 10ft away from the pump. Turn on the power and wait for the pump to prime, which may take several minutes until the strainer housing is full of water, the prime time depends on the vertical and horizontal distance of the suction pipe. Make sure all necessary valves are open and the circulation is free when the pump is running. If the pump fails to prime within five minutes, stop it and check the problem. See the Troubleshooting Guide.

SERVICING

Warning: Stop the pump and release all pressure from the circulation system before servicing.

Clean the filter basket regularly to ensure adequate water flow.

Make sure the motor runs in a normal way without any noise or vibration or overheating.

If any problem is found on the pump, see troubleshooting on pages 6-7 to find the problem and contact the distributor to get spare parts for replacement.

STORAGE

Keep the pump from freezing in cold weather. Please follow the instructions to drain the pump:

- Make sure the water level is below the suction pipe in the pool.
- Remove the drain plug from the pump strainer body as well as the pump lid.
- Take off the pump from the mounting pad and pour out the remaining water from the pump.
- Assemble the strainer lid and drain plug back into the pump.
- Keep the pump in a dry and ventilated place.

Warning: Turn off the power and release all pressure before draining the pump.

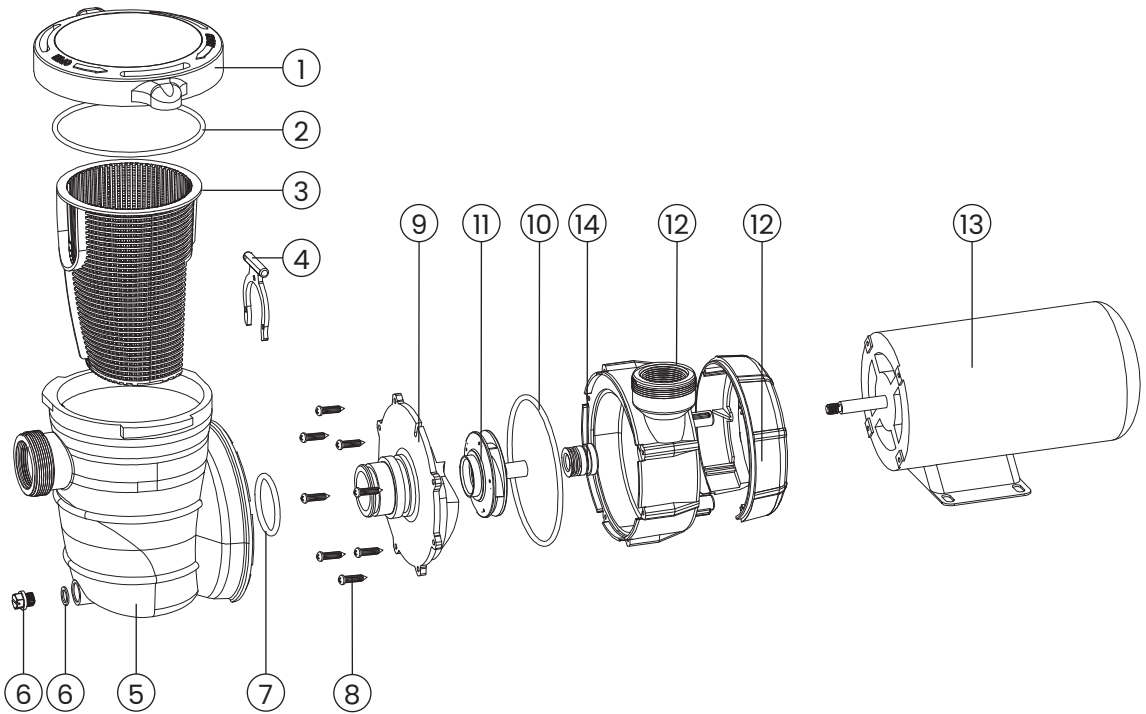
Warning: Do not pack the pump in a sealed bag to prevent metal components from rusting.

TROUBLESHOOTING

ISSUE	POSSIBLE SOLUTION
MOTOR WILL NOT START	Wrong wiring; Loose electrical connection; Switches or relays not closed; Tripped circuit breakers, GFCI's, or blown fuses. No power supply or improper power supply.
	Open the motor back cover and rotate the shaft manually to make sure it is not trapped.
	If the pump connects to a timer, make sure it works.
MOTOR SHUTS OFF	Improper wiring (wrong wiring size or extension cords); Loose connections.
	Low voltage.
	Electrical overload.
	Motor overheating due to damage in violent transportation.
MOTOR HUMS BUT CAN NOT START	Centrifugal switch stuck in OPEN position.
	Trapped impeller or motor shaft.

ISSUE	POSSIBLE SOLUTION
PUMP CAN NOT PRIME	Make sure the pump strainer housing is filled with water. Check to see if the strainer cover is sealed properly without air leakage.
	Make sure all necessary valves are in the open position and the water can circulation freely.
	Check to see if the pump develops a vacuum, if so, there might be air leakage in the plumbing, please further check each pipe and joint in the plumbing; If the pump does not develop any vacuum, please further check if there's air leakage from the pump lid or connectors/fittings. Also, make sure the impeller is not trapped by debris.
LOW FLOW	The filter screen or suction pipe is blocked or restricted.
	The pipe is not big enough for more water to go through. Usually, a 1.5" pipe allows a maximum flow of 45GPM, 2.0" allows a maximum flow of 80GPM and 2.5" allows a maximum flow of 110GPM.
	Filter pressure is too high due to dirty filter media. If the pump connects to a sand filter, backwash the sand filter; If the pump connects to a cartridge filter, replace the cartridge.
	Leakage from the pump lid or connectors/fittings. If air leaks into the suction pipe, the pump will rumble constantly.
	Abnormal Suction line or discharge line; Leak at any joint; Low pool water level.
NOISY PUMP	Pump base vibration.
	Foreign matter in the pump, especially around the impeller, try to remove foreign matter from the pump.
	The motor bearings wore out. In this case, new bearings are needed for replacement.

SPARE PARTS



No.	Description
1	Lid & Clamp Ring
2	O-Ring
3	Basket
4	Clip-Bayonet
5	Strainer Casing
6	Drain Plug
7	Diffuser O-Ring

No.	Description
8	Screw
9	Diffuser
10	Pump Housing O-Ring
11	Impeller
12	Pump Housing
13	Motor
14	Shaft Seal