

PROTEGE
PUMPS®



POOL & SPA PUMP

USER MANUAL

RETAIN THIS MANUAL FOR FUTURE REFERENCE

PLEASE READ THIS MANUAL CAREFULLY BEFORE USE

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SAFETY

- **RISK OF SUCTION ENTRAPMENT HAZARD, WHICH, IF NOT AVOIDED, CAN RESULT IN SERIOUS INJURY OR DEATH.**
- **Do not start pump dry!** Running the pump dry for any length of time will cause severe damage and will void the warranty.
- Do not block pump suction, as this can cause severe injury or death.
- Do not use this pump for wading pools, shallow pools, or spas containing bottom drains, unless the pump is connected to at least two (2) functioning suction outlets.
- To reduce the risk of injury, do not permit children to use this product.
- Incorrectly installed equipment may fail, causing severe injury or property damage.
- The pump is for fixed installations only and to be used in conjunction with swimming pool equipment.
- To minimize the risk of severe injury or death, the filter and/or pump should not be subjected to the piping system pressurisation test.
- Local codes may require the pool piping (plumbing) system to be subjected to a pressure test. These requirements are generally not intended to apply to the pool equipment such as filters or pumps.
- Chemical spills and fumes can weaken pool/spa equipment.
- Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage.
- Do not store pool chemicals near your equipment.
- 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.
- The pump is not intended for use by young children or infants unless they have been adequately supervised by a responsible person to ensure that they can use the pump safely.
- Young children should be supervised to ensure that they do not play with the pump.

SET-UP

NOTE: To achieve better self-priming, install the pump as close as possible to the water level of the pool. Do not start pump dry! Pump must be primed before turning on! (See Operation). It is recommended that Teflon tape is used on all threads and plumbing.

1. If the pump is located below water level, isolation valves must be installed on both the suction and return lines to prevent back flow of pool water during any routine or required servicing.
2. The pump must be placed on a solid surface that will not vibrate. To further reduce the possibility of vibration, bolt the pump to the surface or place a rubber mat between the surface and pump.
3. The pump surface must have adequate drainage to prevent the motor from getting wet. Protect the pump from the rain and sun.
4. Proper ventilation is required for the pump to operate normally. All motor generate heat that must be removed by providing proper ventilation. 150mm clearance at the rear of the pump is recommended to ensure adequate ventilation and accessibility for the motor.
5. This pipe has an automatic pressure sensor that will pump if the pressure is low and will stop pumping if the pressure is too much. The pump must be turned off at the mains power to fully shut down. Ensure the power switch to this pump is easily accessible.
6. Also be aware of location when draining water. Mount somewhere clear of electrical or items that will be damaged by water.

OPERATION

1. Once the piping and pump have been securely mounted and the power cord is set up (BUT NOT TURNED ON!) remove the clear lid.
2. Fill up the filtration section with pool water – This is called "priming."
3. Place the clear lid back on and turn on.
4. Check for any leaks.

**NOTE:**

- If there are, water must be fully drained.
- Locate leaks and mark.
- Remove drain plug (black screw directly below the inlet).
- Once water has been cleared, isolate the marked area and add more Teflon tape or silicone.
- Turn pump on during or just before pool use. Do not leave on over long periods of time.

MAINTENANCE

- The strainer basket built into the pump tank should be inspected and cleaned at regular intervals. These strainer baskets are easy to clean. Remove the tank lid to expose the strainer basket. Remove the basket and clean. Inspect the lid O-ring. If damaged, replace. Replace the strainer basket and re-install the lid. Tighten by hand only.
- If your pool is deactivated until next season, care must be taken to protect the pump part from damage. Drain completely by removing the drain plug provided at the bottom of the pump tank. Do not replace the plug, but store it in the strainer basket for the winter. An alternative is to remove the pump and store it indoors in a warm, dry location.
- If the pump is used with sea water, it is necessary to flush it with clean water. It is also recommended that the seals should be replaced before next season.
- It is also possible to leave the pump's wet end and piping intact and only remove and store the motor and impeller assembly. In this case, remove the motor to tank screws. Protect the remaining pump parts that are attached to the system from a build-up of liquid from rain and/or snow.
- When activating the pump again, follow the above procedures in reverse order. Replace the body O-ring between the tank and the back plate if damaged. Install the drain plug. Check the pump shaft for any free movements. Prime the pump as described above and check the rotation of the pump shaft.

TROUBLESHOOTING

SYMPOTMS	PROBABLE CAUSES	RECOMMENDED ACTIONS
Pump will not prime.	Suction air leak.	<ul style="list-style-type: none"> Be sure that the water in the pool is high enough to flow through the skimmer. Make sure that the lid O-ring is clean and properly positioned. Hand-tighten the tank lid down securely. Tighten all pipes and connections on the suction of the pump. Remove and replace the pump seal.
	No water in the pump.	<ul style="list-style-type: none"> Make sure that the pump tank is filled with water.
	Closed valves or blocked lines.	<ul style="list-style-type: none"> Open all valves in the system. Clean the skimmer and pump strainer basket. Open the pump and check for any clogged parts.
Motor isn't running.	No power supplied to the motor.	<ul style="list-style-type: none"> Check if all power switches are turned ON. Ensure that the fuse or circuit breaker is properly set. Ensure that the timer is properly set. Check the timer for proper operation. Check the motor wiring at the terminals.
	The pump is jammed.	<ul style="list-style-type: none"> With the power turned OFF, turn the shaft – it should spin freely. If not, contact a qualified technician to disassemble and repair the pump.
Weak water flow.	The filter is dirty.	<ul style="list-style-type: none"> Back-wash the filter when the filter pressure is high.
	The skimmer basket is dirty.	<ul style="list-style-type: none"> Clean the skimmer and pump strainer baskets.
	Suction air leak	<ul style="list-style-type: none"> Be sure that the water in the pool is high enough to flow through the skimmer.

SYMPTOMS	PROBABLE CAUSES	RECOMMENDED ACTIONS
	Closed valves or blocked lines.	<ul style="list-style-type: none"> Make sure that the lid O-ring is clean and properly positioned. Hand-tighten the tank lid down securely. Tighten all pipes and connections on the suction of the pump. Remove and replace the pump seal.
Motor becomes hot.	<p>The motor will run hot to the touch. This is normal. The thermal overload protector will operate to turn the motor off if there is an overload or if the temperature becomes too high. Excessive heat can be caused by:</p> <ul style="list-style-type: none"> Low or incorrect voltage. Pump has been installed directly under the sun. Poor ventilation. 	<ul style="list-style-type: none"> Wiring should be corrected by a skilled technician. Shield the pump from the sun's rays. Do not cover or enclose the pump.
Motor becomes noisy.	Bad motor bearings.	Have a skilled technician replace the bearings in the motor.
Pump becomes noisy.	<p>Air leak in the suction line. Bubbles in the water returning to the pool at the inlet.</p> <p>Restricted suction line due to blockage or undersized pipe. Indicated by a high vacuum reading at the pump suction.</p> <p>Foreign matter (gravel, metal, etc.) are lodged in the pump impeller.</p> <p>Cavitation.</p>	<ul style="list-style-type: none"> Repair the leak. Check the suction pipe. Ensure that the lid O-ring is clean. Have a qualified technician remove the blockage or increase the suction pipe's size. Ensure that the strainer basket is clean. Ensure that all suction valves are fully opened. Have a qualified technician disassemble the pump and remove the foreign matter from the impeller. Improve the suction conditions (reduce suction lift and/or number of fittings, increase pipe size.) Increase the discharge pressure and reduce the flow by throttling the discharge valve.
Motor overload protection kick-backs.	<p>The motor is connected improperly.</p> <p>Low voltage due to undersized wire or low, incoming voltage reading.</p>	<ul style="list-style-type: none"> Have a qualified technician check the wiring diagram on the motor. Have a qualified technician check the volt meter. Increase the size of the supply wire. Report low supply voltage to your power company. Voltage of motor must be within 6% of motor voltage as indicated on the nameplate.
The pump is leaking.	The seals are worn out.	The seal must be replaced occasionally. The seal must especially be replaced more often if the pump is being used with seawater and not being flushed with clean freshwater when drained.

TECHNICAL SPECIFICATIONS

MODEL	PS20
POWER	2000W/2.65HP
VOLTAGE	220-240V / 50Hz
MAX. FLOW	560 L/m
IP55 INS CLF	Max. 50°C
AMPS	8.0
HEAD MAX	18m
CAPACITOR	25µF
INLET	48mm Internal / 55mm External
OUTLET	48mm Internal / 55mm External
PIPE COMPATIBILITY	Fit 48mm plumbing internally and 55mm plumbing externally
NOISE LEVEL	<65dB

Note: The pump must be installed in a covered area



Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.

- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.