

SO-QUIET V



USER GUIDE

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IMPORTANT - PLEASE READ THIS MANUAL CAREFULLY.

NOTE

To prevent the risk of injury and avoid unnecessary customer service calls, carefully read the entire manual.

KEEP THIS MANUAL FOR FUTURE REFERENCE

The use of unauthorized spare parts voids the warranty.

INSTALLER: CAUTION - THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING THE INSTALLATION, OPERATION, AND SAFE USE OF THIS PUMP AND MUST BE GIVEN TO THE END USER OF THE PRODUCT. IF ALL INSTRUCTIONS ARE NOT READ AND FOLLOWED, SERIOUS INJURIES COULD OCCUR.

You can read the complete manual and download it in PDF format on the website: www.wpump.com



1. SAFETY INSTRUCTIONS AND WARNINGS:

WARNINGS

- The device described in this manual is specifically designed for water prefiltration and circulation in pools and is intended to operate with clean water at temperatures below 35°C.
- This device is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities or lack of experience and knowledge, unless they are under the supervision of a person responsible for their safety or have received appropriate instructions from that person. Children should be supervised to ensure they do not play with the device.
- Children aged 8 and above and individuals with reduced physical, sensory, or mental capabilities or lack of experience and knowledge can use this device under supervision or with appropriate safety instructions, understanding associated dangers. Children should not play with this device, and cleaning and maintenance should not be performed by unsupervised children.
- The pump must be installed only in pools compliant with IEC/HD 60364-7-702 standards and current national regulations. The installation must adhere to IEC/HD 60364-7-702 standards and national regulations concerning pools. For more information, consult your local dealer.
- If a self-priming pump is to be installed above the water level, the pressure difference with the pump's suction hose should not exceed 0.015 MPa (1.5 mH₂O). The suction hose should be as short as possible, as a long hose increases suction time and installation losses.
- The pump must be secured to a support or specific location in a horizontal position.
- Place a sump with a liquid outlet suitable for locations at risk of flooding.
- Do not install the pump in Zone 0 (Z0) or Zone 1 (Z1). Refer to the diagrams on pages 22/23.
- To know the Total Head (H max) in meters, refer to page 30.
- The device must be connected to an alternating current power supply (refer to the information on the pump plate) with grounding, protected by a Residual Current Device (RCD) with a nominal residual current not exceeding 30 mA.
- A disconnect switch must be installed on the fixed electrical installation in accordance with installation regulations.
- Do not immerse the device in water or mud.
- Some pump components have a limited lifespan. All components must be regularly inspected and replaced if worn, damaged, broken, cracked, or missing.

Risk of electrocution. Dangerous voltage. Risk of electrocution, burn, or death. To reduce the risk of electrocution, DO NOT use an extension cord to connect the device to power. Use a well-placed outlet. Electrical wiring must be done by certified electricians. The entire electrical wiring MUST comply with local and national codes and regulations. Before handling the pump or motor, disconnect the motor.

- To reduce the risk of electrocution, immediately replace any damaged cable. DO NOT bury the cable. Place the cable to avoid damage from lawnmowers, hedge trimmers, and other devices.
- Connect the device only to an outlet with grounded protection by a Ground Fault Circuit Interrupter (GFCI). Contact a certified electrician if you cannot verify if the outlet is protected by a GFCI.
- If the pump is not connected to the pool structure, the risk of electrocution increases, and injuries or death may occur. To reduce the risk of electrocution, follow the installation instructions and ask a professional electrician how to connect the pump.

Risk of suction entrapment. Entrapment in suction inlets and/or damaged, broken, cracked, missing, or improperly secured suction inlet covers can cause serious injuries and/or death due to the following entrapment risks:

Hair Entrapment - Hair can become entangled in a suction inlet cover.

Limb Entrapment - A limb inserted into an opening or a suction inlet cover that is damaged, broken, cracked, missing, or improperly secured can lead to limb entrapment.

Body Entrapment by Suction - Pressure applied to a significant part of the body or limbs can result in entrapment.

Mechanical Entrapment - Jewelry, swimwear, hair accessories, fingers, toes, or joints may become trapped in a suction inlet cover, causing mechanical entrapment.

To reduce the risk of entrapment:

- When the inlets are small enough to be blocked by a person, at least two suction inlets per pump must be installed. A minimum distance of three feet (3') [0.91 m], measured between the two closest points, must separate suction inlets located on the same surface (wall or floor).
- Sets consisting of two suction inlets must be installed at locations and distances that do not allow a user to block both inlets simultaneously.
- Sets consisting of two suction inlets must not be installed on seating places or the backrest of seating places.
- The maximum flow rate of the system must not exceed values specified by regulations in force in the installation region.
- Never use the pool if any component of a suction inlet is damaged, broken, cracked, missing, or improperly secured.
- Immediately replace any damaged, broken, cracked, missing, or improperly secured suction inlet component.
- In addition to the minimum two suction inlets per pump, comply with all applicable national, regional, and local codes.
- Installing a vacuum breaker or an air-relief system that releases suction force is recommended.

- **Dangerous pressure.** The water circulation system of a pool operates under dangerous pressure during start-up, normal operation, and after the pump stops. Do not approach the circulation system equipment when starting the pump. Failure to follow safety instructions and usage instructions can cause violent separation of the pump body and its cover due to the pressure in the system, resulting in property damage, serious injuries, or death. Before servicing the pool water circulation system, all system and pump controls must be in the closed position, and the manual air bleed of the filter must be open if part of the filtration system. Before starting the pump, all system valves must be set to a position allowing water from the system to return to the pool. Do not change the position of the filter control valve when the pump is running. Before starting the pump, fully open the manual air bleed of the filter. Do not close the manual air bleed of the filter until the water flow coming out of it is continuous (without air or air-water mixture). All suction and discharge valves **MUST be OPEN** when starting the circulation system. Otherwise, serious injuries and/or property damage may occur.
- **Risk of separation.** Failure to follow operating instructions and safety instructions can cause violent separation of pump components. The prefilter cover must be securely attached to the pump body using its clamping ring. Before servicing the pool or spa water circulation system, all system and pump controls must be in the closed position, and the manual air bleed of the filter must be open. Do not start the pool circulation system if any component is not properly assembled or is damaged or missing. Do not start the pool circulation system if the filter air bleed is not in the closed position. All suction and discharge valves **MUST be OPEN** when starting the circulation system. Otherwise, serious injuries and/or property damage may occur.

- Never operate and test the circulation system at more than 40 psi (2.7 bar).
- **Risk of fire and burn.** Motors operate at high temperatures, and if they are not properly insulated from flammable structures or foreign debris, they can cause fires that may result in serious injuries or death. It is also necessary to let the motor cool for at least 20 minutes before performing any maintenance operation to reduce the risk of burns.
- Failure to follow provided installation instructions may result in serious injuries or death.
- The use of unauthorized spare parts voids the warranty.

CAUTION

While this product is designed for outdoor use, it is strongly recommended to protect electrical components from the weather. Choose a well-drained location, protected from floods in case of rain. The pump requires free air circulation for cooling. Do not install it in a damp or poorly ventilated location. If installed in an outdoor enclosure or under the cover of a spa, ensure that ventilation is adequate and air circulates freely to prevent motor overheating.

2. GENERAL INSTALLATION INSTRUCTIONS:

WARNING

This product must be installed and maintained only by a qualified professional.

PUMP LOCATION

Install the pump as close to the pool as possible and use the most direct suction hoses to minimize head losses. Suction hoses should be installed with a continuous upward slope from the lowest point. Joints should be tightly sealed (but not overly tight). The diameter of suction hoses must be equal to or greater than the diameter of discharge hoses.

Although the pump is designed for outdoor use, it is strongly recommended to protect electrical components from the weather. Choose a well-drained location, protected from flooding in case of rain. DO NOT install the pump in a damp or poorly ventilated location. Keep the motor clean.

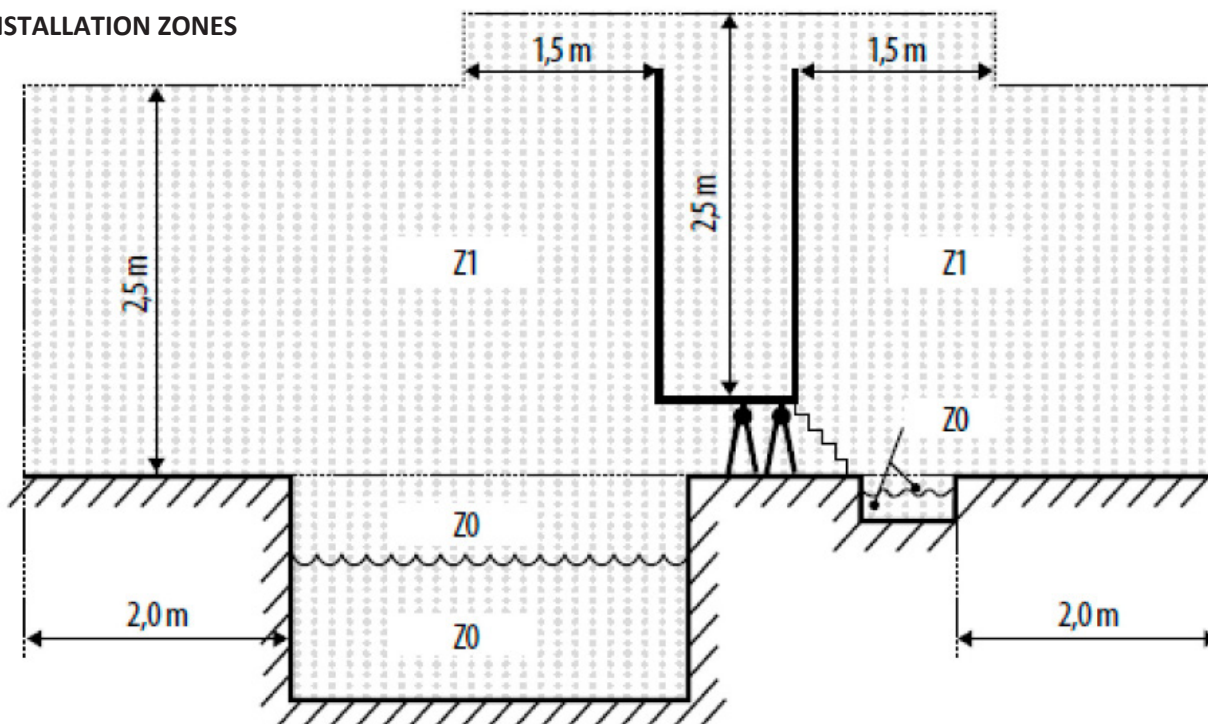
THE PUMP MUST BE INSTALLED

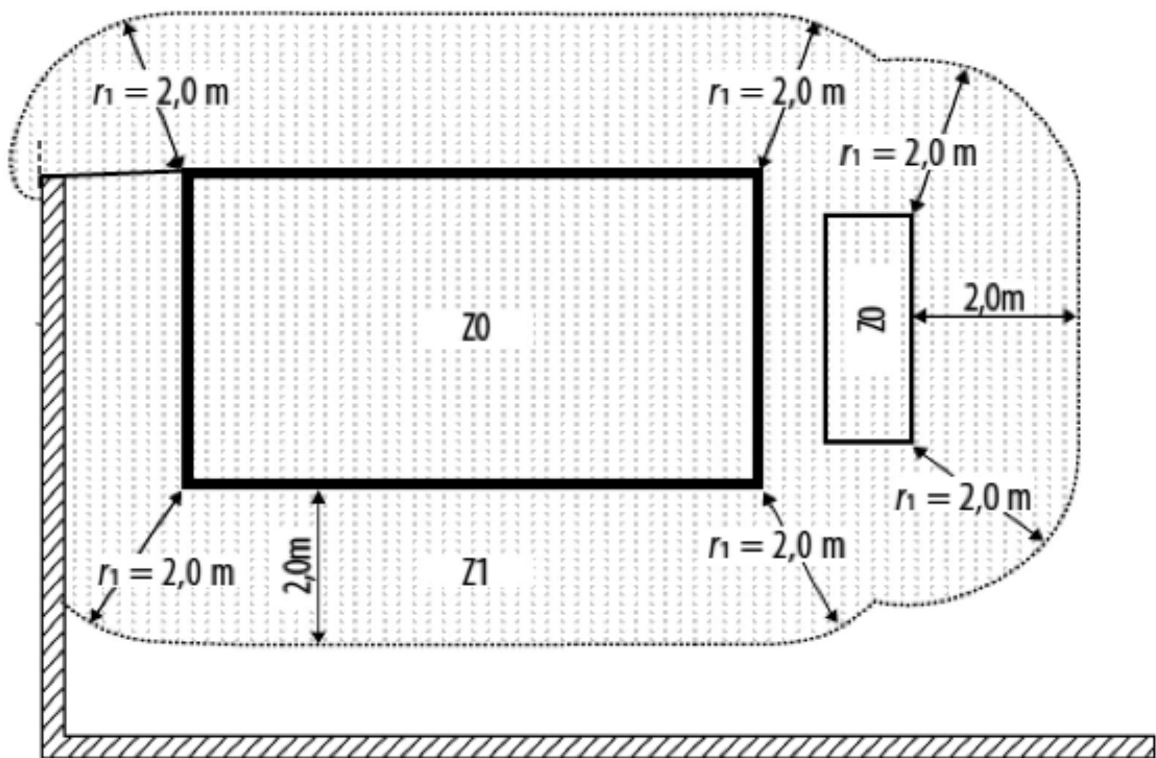
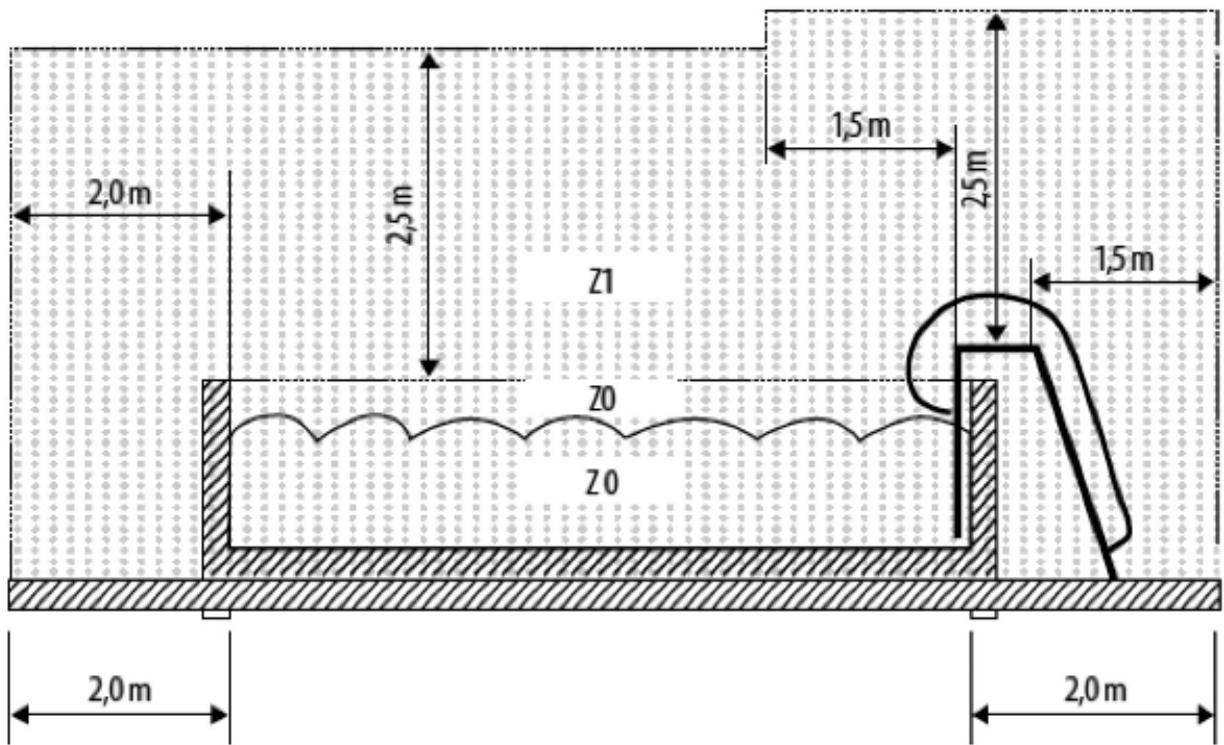
- 1) Before the filter, heating system, and/or water treatment unit.
 - At 2 meters from the pool edge to prevent splashes from reaching it. Some standards allow for different distances. Consult the standards applicable in the installation country.
- 2) As close to the pool as possible to reduce head losses and improve efficiency. Use short and direct suction and discharge hoses.
- 3) Indoors or in the shade to protect it from direct sunlight, heat, and rain.
- 4) In a well-ventilated area. The pump and motor must be at least 100 mm away from any obstacle. Pump motors require free air circulation for cooling.
- 5) Horizontally and secured to the support with screws to avoid unnecessary noise and vibrations.

THE PUMP MUST NOT BE INSTALLED

- In an area exposed to rain and splashes.
- Near a source of heat or flammable gas.
- In an area that cannot be cleaned or cleared of leaves, dry vegetation, or other flammable materials.
- In Zone 0 (Z0) or Zone 1 (Z1).

INSTALLATION ZONES





PUMP ASSEMBLY

Install the pump on a solid and level base or location to comply with all local and national codes. Secure the pump to the base or location using screws or bolts to further reduce vibration and stress on the pipe or its joints. The base **MUST** be solid, level, rigid, and free of vibration.

THE PUMP INSTALLATION MUST MEET THE FOLLOWING CRITERIA

- The pump's inlet height should be as close as possible to the pool water level.
- The installation should allow for the use of a short and direct suction hose or flexible (to reduce head losses).
- The installation should allow for the use of shut-off valves on the suction and discharge hoses.
- The pump must be protected from excessive moisture and flooding.
- The installation should provide proper access for pump and pipeline maintenance.
- It is highly recommended to install union fittings before the pump's inlet and between the outlet and the pump tank in in-ground pools.

NOTE - It is recommended to use a minimum hose length equal to **10 times the diameter of the hose** between the pump suction nozzle and any pipe fitting.

WARNING - Dangerous pressure. Pumps, filters, and other components of the pool filtration system operate under pressure. If not properly installed and/or tested, they can cause injuries and/or property damage.

PIPEWORK

Use Teflon tape, available at plumbing stores or hardware stores, to seal the threaded connections of blown plastic components. All plastic fittings must be new or thoroughly cleaned before use. **NOTE - DO NOT use** lubricating paste, as it could crack plastic components.

When applying Teflon tape to threaded connections, wrap the entire threaded part of the male fitting with one or two layers of tape. Wrap the tape clockwise (when facing the fitting) starting from the far end of the fitting. The pump's suction and discharge nozzles are equipped with a molded thread stop. **DO NOT force the hose connection fitting** beyond this stop. Just tighten the fittings enough to prevent leaks. Tighten the fitting by hand, then use a tool to tighten it another 1 ½ turns. Be cautious when using Teflon tape, as friction is significantly reduced. **DO NOT overtighten the fitting**, as it may damage it. In case of leaks, remove the fitting, remove the old Teflon tape, and wrap one or two layers of new Teflon tape, then reinstall the fitting. For more solutions, refer to the troubleshooting section.

FITTINGS

The types and sizes of pipes and fittings differ depending on the pumps. Check the technical data sections of this installation/use manual to ensure you have the appropriate fittings before starting the installation. If your new pump replaces an old one, you may need to obtain special fittings to connect the pipes. Visit your professional pool store or a well-stocked hardware store to find what you need.

Reducers reduce flow. For more efficiency, use as few fittings as possible (but at least two suction nozzles). Avoid using fittings that can trap air. Use non-trapping suction items (multiple drains) or double suction (skimmer and bottom drain).

3. ELECTRICAL INSTALLATION AND CONNECTION:

WARNINGS

– Ground and bond the motor before energizing it. Otherwise, serious injury or death by electrocution may occur. Refer to the grounding and bonding instructions.

– **DO NOT ground to a gas line.**

– To avoid serious injury or death by electrocution, turn off the motor before handling electrical connections.

– Tripping of the ground fault circuit interrupter (GFCI) indicates an electrical problem. If the GFCI trips and does not reset, have an electrician inspect and repair the electrical system.

– **Fire hazard.**

The current voltage must match that indicated on the motor nameplate.

Ensure that the available electrical supply matches the motor's voltage, phase, and cycle, and that the cable size is suitable for power (kW) and the distance between the motor and the power source.

NOTE - All electrical wiring **MUST** be done by a licensed electrician and **MUST** comply with local codes. Use only copper conductors.

VOLTAGE

The voltage at the motor **MUST NOT** be 10% lower or higher than the voltage indicated on the motor nameplate, as the motor may overheat, causing the circuit breaker to trip and a shorter lifespan. If the voltage is less than 90% or more than 110% of the rated voltage when the motor is running at full speed, consult your power supplier.

GROUNDING AND BONDING

Install the motor and ground it, bond it, and wire it in accordance with the requirements of the local or national electrical code.

Permanently ground the motor. Use the green grounding terminal located under the motor frame or access plate. Use a cable of type and size compliant with the code. Connect the motor's grounding terminal to the power service ground. Connect the motor to the pool structure. This bonding connects all metal parts of the pool and those near the pool with a continuous cable.

Bonding reduces the risk of current flowing between bonded metal objects, which could result in electrocution in the event of a ground fault or short circuit.

START-UP AND OPERATION:

BEFORE STARTING

Note: If a pressure test is necessary before the first use to ensure that the pump is functioning correctly, follow these instructions:

1. Have a professional perform this test.
2. Ensure that all pump and system components are properly sealed to prevent any leaks.
3. Eliminate trapped air in the system by fully opening the manual air relief on the filter until a continuous flow of water comes out.
4. Never exceed 40 psi (276 kPa) at a water temperature equal to or less than 40 °C.
5. Perform the pressure test for a maximum of 24 hours. Immediately inspect all parts to ensure they are intact and functioning correctly.

Fill the pre-filter body with water up to the suction hose level.

NEVER OPERATE THE PUMP WITHOUT WATER. Water acts as a coolant and lubricant for the mechanical seal.

WARNING - If the pump undergoes a pressure test (40 psi MAXIMUM), make sure the pressure has been released before removing the pre-filter cover.

PRUDENCE – Ne mettez JAMAIS la pompe en marche à sec. Cela peut endommager les joints, ce qui provoquerait des fuites et des inondations, et annule la garantie. Remplissez le corps du préfiltre avec de l'eau avant de démarrer le moteur.

ATTENTION – N'ajoutez PAS de produits chimiques au système via le skimmer (si la piscine en est équipée) ou directement devant l'aspiration de la pompe. L'ajout de produits chimiques non dilués risque d'endommager la pompe et annule la garantie.

ATTENTION – Avant de retirer le couvercle du préfiltre :

1. **CAUTION - NEVER** run the pump dry. This can damage the seals, causing leaks and floods, and voids the warranty. Fill the pre-filter body with water before starting the motor.
2. **ATTENTION - DO NOT** add chemicals to the system via the skimmer (if the pool is equipped) or directly in front of the pump suction. Adding undiluted chemicals can damage the pump and void the warranty.
3. **ATTENTION** - Before removing the pre-filter cover:

PRIMING THE PUMP

CAUTION – All suction and discharge valves MUST be OPEN, as well as the air purge on the filter (if applicable), when starting the pump circulation system. Failure to do so may result in serious injuries.**

- Release any air present in the filter, pump, and piping. Refer to the filter's user manual for guidance.
- If the water inlet is higher than the pump, as is the case in above-ground installations, the pump automatically primes when opening the suction and discharge valves.
- If the water inlet is lower than the pump, as in underground installations, unscrew and remove the pre-filter cover, then fill the pre-filter body with water.
- Clean and lubricate the O-ring of the pre-filter cover with high-quality O-ring lubricant each time you remove it.
- Inspect the O-ring, and replace it if damaged.
- Replace the cover on the pre-filter body and screw it clockwise.
- **NOTE** – Screw the pre-filter cover by hand only (do not use a wrench).

Power up the pump and wait for it to prime, which may take up to five (5) minutes. The priming time depends on the vertical and horizontal length of the suction hose. **If the pump does NOT prime within five minutes, stop the motor and identify the cause. Ensure all suction and discharge valves are open when the pump is in operation. Refer to the troubleshooting guide.**

WARNING – Wait five (5) seconds before restarting the pump. Otherwise, the motor's rotation direction may be reversed, and the pump could be seriously damaged. Close the manual air purge of the filter once the pump is primed.

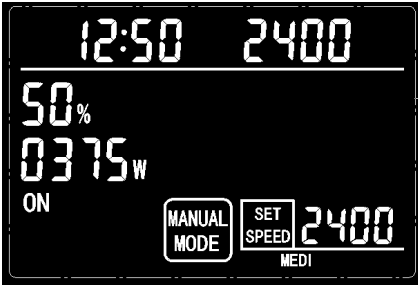
5. PROGRAMMING TIME AND SPEED FUNCTIONS:

Carefully follow the programming procedure outlined in this section. Take the time to complete the programming correctly. It is helpful to have a second person read the procedure from the manual while you enter the values using the buttons.

OPERATING MODES:

These pumps have two operating modes: manual and automatic. You can switch between them by pressing the "Up Arrow" and "Down Arrow" buttons simultaneously.

1.0 - MANUAL OPERATING MODE :



(Image #1)

In manual mode, the pump operates at a constant speed set by the user (see image 1).

1.1 - The manual mode offers 4 default speeds: "LOW," "MEDIUM," "HIGH," and "FULL."

	LOW	MEDI	HIGH	FULL
SPEED	1.150	1.700	2.100	2.850

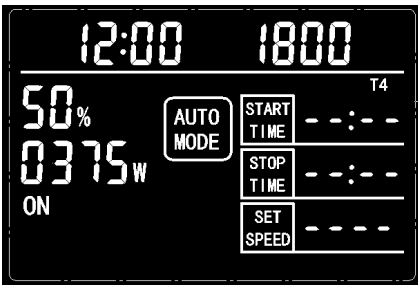
1.2 - You cannot modify the default speeds. However, you can adjust them to a temporary speed within the default ranges using the "Up Arrow" and "Down Arrow" buttons.

1.3 - After setting the temporary speed, press the "SET" button to set the next default speed.

1.4 - In manual mode, if you turn off the pump, the current speed may be automatically saved for use during the next startup.

AUTOMATIC OPERATING MODE: TO START PROGRAMMING THE AUTOMATIC MODE, PRESS THE "SET" BUTTON ONCE (SEE IMAGE 2).

NOTE - The automatic mode does not function until the current time and hours and speeds parameters are programmed. Follow the procedure below to program the current time and hours and speeds for each interval.



(Image #2)

2.1 - Programming the current time:

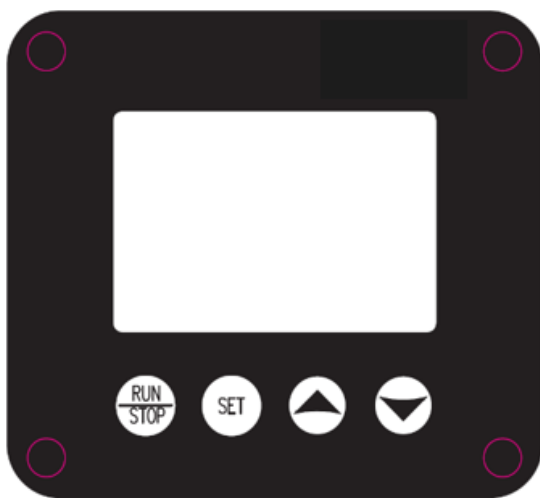
- To program the current time, press the "RUN/STOP" and "SET" buttons simultaneously for 3 seconds. The hours flash. Set the hours using the "Up Arrow" and "Down Arrow" buttons. Once the hours are set, press the "SET" button to access the minutes. The minutes flash. Set the minutes using the "Up Arrow" and "Down Arrow" buttons.

2.2 - Programming operating speeds and hours for intervals "T":

- You can program up to 4 intervals. Each interval includes three parameters: start time, end time, and operating speed. The intervals are displayed on the screen as "T1," "T2," "T3," and "T4." Once the setting is complete, the pump operates at the programmed speed within the interval defined by the start and end times. The hours and speeds are recorded when the pump is turned off.
- When programming the hours and speeds parameters for the first time, the programming automatically starts with the first interval of hours and speed, "T1."

- When programming a time and speed interval, all parameters (start time, end time, and operating speed) are displayed. The parameter currently being programmed blinks.
- Press the "SET" button to start programming the time and speed interval "T1." Use the "Up Arrow" and "Down Arrow" buttons to program the start time, end time, and operating speed. The currently adjusted parameter blinks. Once the hours and speed are set, press "SET" to save them. The next parameter blinks. Continue adjusting start and end times and speeds until the end. Once the first interval is programmed, press the "SET" button for 3 seconds to save and exit the interval.
- Press the "Down Arrow" button to access interval "T2" and program it. Repeat the procedure used for the first interval.
- Continue the procedure with intervals "T3" and "T4" until you have programmed all desired time and speed intervals, up to a maximum of four. It is not necessary to program all four time and speed intervals.
- If you make a mistake while programming the time and speed of an interval, you can go back by pressing "SET" once. To access the desired time or speed parameter, press "SET" until the parameter blinks. Modify the parameter using the "Up Arrow" and "Down Arrow" buttons.
- During the programming of an interval "T," if you don't press any button for more than 8 seconds, the programming of that interval "T" is automatically saved, and the screen exits programming. You can return by pressing the "Down Arrow" button once, then "SET" to access the interval that was being programmed. Continue the programming procedure normally.
- When programming intervals "T2," "T3," or "T4," the programmed hours should not overlap. If the hours overlap, you cannot save the current programming interval. Restart the programming of the interval as described above.
- To quickly delete the current settings of a "T" interval, set the start time to "23," and press the "Up Arrow" button once: all settings for that interval are deleted. You can also set the start time to "00" and press the "Down Arrow" button once: all settings for that interval are deleted.
- For more information on programming, refer to the button functions below.

3.0 - Descriptions and Functions of Buttons:



3.1 - "RUN/STOP" Button:

Allows you to start and stop the pump..

- When pressed in manual mode to stop the pump, the pump stops until you restart it.
- When pressed in automatic mode to stop the pump, the pump stops until the start time of the next programmed interval.

3.2 - "SET" Button:

- En mode manuel, permet de passer d'une vitesse par défaut à l'autre.
- En mode automatique, permet de saisir le statut de programmation ou la valeur suivante pour programmer chaque intervalle.
- En mode automatique, appuyez dessus pendant 3 secondes pour quitter l'intervalle.

3.3 - "Up Arrow" Button:

- In manual mode, increases the pump speed.
- During the programming of the current time, returns to the previous interface and displays the time screen.

- During the programming of "T" intervals in automatic mode, it allows you to increase the hours or the speed of the interval.
- If you press it for an extended period, the value increases rapidly.

3.4 - "Down Arrow" Button:

- In manual mode, allows you to decrease the pump speed.
- During the programming of the current time, returns to the previous interface and displays the time screen.
- During the programming of "T" intervals in automatic mode, allows you to decrease the hours or the speed of the interval.
- If you press it for an extended period, the value decreases rapidly.

3.5 - Button Combination Functions:

- Press the "Up Arrow" and "Down Arrow" buttons simultaneously to switch from automatic mode to manual mode.
- Press the "RUN/STOP" and "SET" buttons together for 3 seconds to set the current time. If you want to cancel the setting, press the "On/Off" button and the "SET" button again to exit the screen.

6. MAINTENANCE, STORAGE, AND WINTERIZING:

MAINTENANCE

- Clean the pre-filter basket regularly. Do NOT tap the basket to clean it. Inspect the gasket of the pre-filter cover regularly and replace it if necessary.
- Pumps are equipped with self-lubricating motor bearings and shaft seals. No lubrication is required.
- Keep the motor clean. Do NOT wash the motor with a water jet.
- Occasionally, the shaft seals may need to be replaced if they are worn or damaged. Use the original seal kit for replacement.

STORAGE AND WINTERIZING

WARNING – Risk of separation and explosion.

- Do not purge the system with compressed air. Components may explode, leading to injuries or death for anyone nearby. Use only a high-volume, low-pressure (below 5 psi) compressed air blower to purge the pump, filter, or pipes.

CAUTION

- If you allow the pump to freeze, the warranty is void.
- **ONLY** use propylene glycol as antifreeze in your pool/spa system. Propylene glycol is non-toxic and does not damage plastic system components. Other antifreezes can be extremely toxic and damage plastic system components.
- Drain all water from the pump and pipes in case of freezing or long-term storage of the pump (see instructions below).
- The pump should be dry and covered during storage. To prevent condensation/corrosion issues, DO NOT cover or wrap the pump in plastic film or bags.

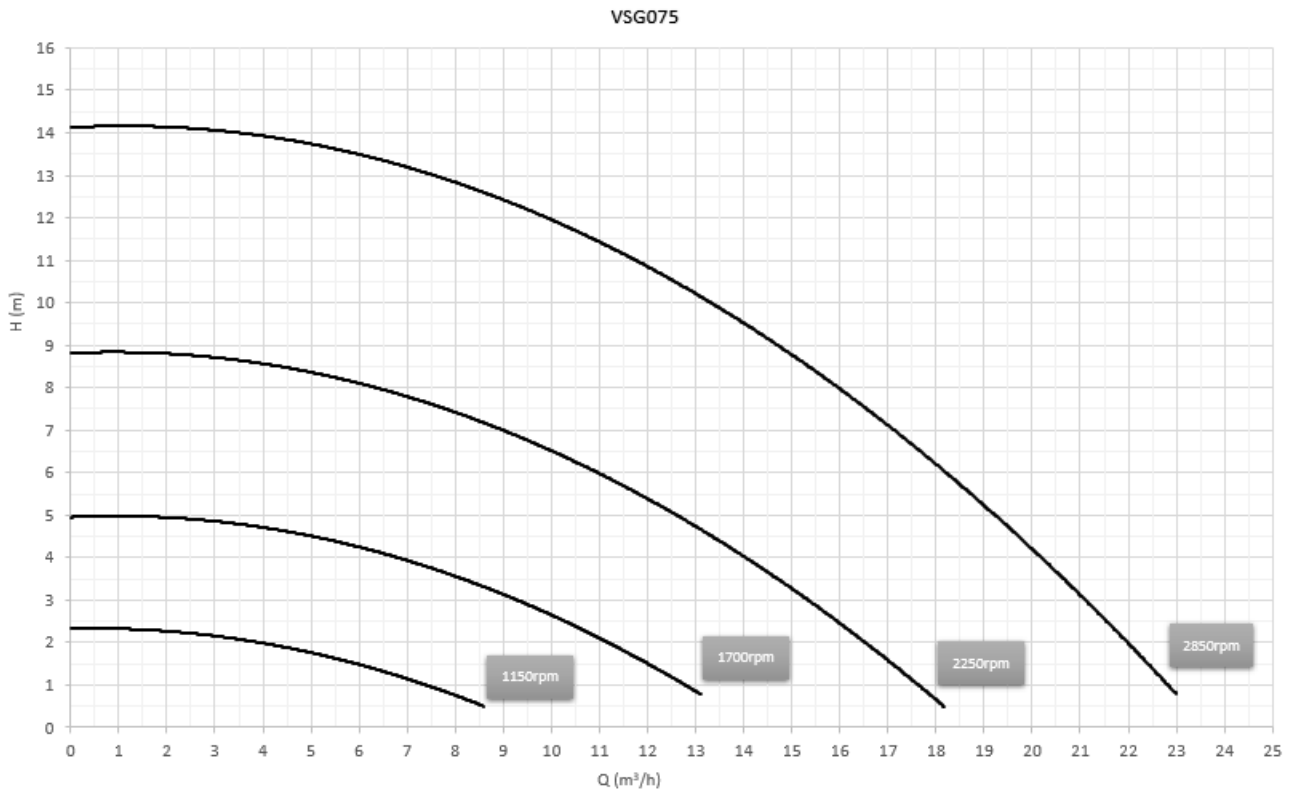
PUMP STORAGE FOR WINTERIZING

WARNING – To avoid serious injury or death by electrocution, turn off the power to the motor before draining the pump. Otherwise, serious injuries or death may occur.

- Drain the water until it reaches a level below all return nozzles to the pool.
- Remove the drain plugs located at the bottom of the pre-filter body and the pre-filter cover.
- Remove the pump from its mounting location and disconnect cables and hoses.
- Once the pump is purged of all water, replace the pre-filter cover and drain plugs. Store the pump in a dry place.

7. TECHNICAL DATA:

Code	Input power	Voltage	Frequency	HMT	Max flow rate	Cable type
VSG75	750 W	230V 50Hz	50Hz	14 mCE	20 m ³ /h	H07RN-F



8. TROUBLESHOOTING:

Computer-controlled troubleshooting functions for SO Quiet V pumps:

1. Protection against low or high temperatures

When the motor temperature exceeds 90°C or falls below -5°C, the pump stops, and the error code "TP" is displayed. Once the motor temperature returns to a normal range between 5 and 60°C, the pump automatically restarts according to the user-programmed automatic mode parameters.

2. Protection against blockages or jams

If the impeller or motor becomes blocked, the error code "BP" is displayed. The pump attempts to restart automatically after 6 seconds. If the restart fails after several attempts, the user should check the impeller and motor. Always turn off the pump before any maintenance operation.

3. Protection against overvoltage

When the system detects an overload or overvoltage error, the error code "OL" is displayed. The pump attempts to restart automatically after 6 seconds if it is not damaged.






4. Protection against phase loss

When the main circuit board detects a phase loss problem (for example, if the motor cable is not properly connected), the error code "LP" is displayed. Once the cable is reconnected or the phase loss is resolved, the pump attempts to restart automatically after 6 seconds.

5. Protection against communication losses

If there is a communication failure between the display circuit board and the main circuit board in the pump, the error code "CP" is displayed, and the pump stops.

CODES D'ERREUR, CAUSES ET SOLUTIONS

Code	Error	Display	Possible causes	Solution
TP	Protection against low or high temperatures		The temperature is above 90°C or below -5°C.	Wait until the temperature returns to a normal range, between 5 and 60°C.
BP	Turbine or motor not turning		<ol style="list-style-type: none"> 1. The pump has sucked in impurities, and the impeller is jammed. 2. Bearings are damaged, blocking the motor shaft. 	<ol style="list-style-type: none"> 1. The pump attempts to restart automatically after 6 seconds. If the restart fails, the user should turn off the pump and check the impeller and motor. 2. Take the pump to a professional repair service for fixing.
OL	Overvoltage		The output current is too high.	<ol style="list-style-type: none"> 1. The pump attempts to restart automatically after 6 seconds if it is not damaged. 2. Take the pump to a professional repair service for fixing.
LP	Phase Loss		Phase cable improperly connected at the input.	Once the cable is properly reconnected, the pump attempts to restart automatically after 6 seconds.
CP	Communication Failure		<ol style="list-style-type: none"> 1. Poorly connected cable between the display circuit board and the main circuit board. 2. Damaged connecting cable. 	<ol style="list-style-type: none"> 1. Once communication is restored, the pump restarts automatically. 2. Check the connecting cable. 3. Take the pump to a professional repair service for fixing.

9. GENERAL TROUBLESHOOTING GUIDE FOR POOL PUMPS:

THE MOTOR DOES NOT START. CHECKS

Ensure that the connections on the terminal plate match the motor nameplate wiring diagram. Check that the motor is wired for the supplied current voltage (see the pump operating label).

1. Incorrect or loose cable connections; open switches or relays; tripped circuit breakers or GFCIs; blown fuses.

Solution: Check all connections, circuit breakers, and fuses. Reset circuit breakers or replace blown fuses.

1. Manually check that the engine shaft rotates freely and is not obstructed.
2. If you have a timer, ensure that it is functioning properly. Remove it if necessary.

THE MOTOR SHUTS OFF. CHECKS

Low voltage at the motor or power drop (common cause: cables too small or use of an extension cord).

Solution: Contact a qualified professional to check that the cable gauge is high enough. The motor may overheat due to direct exposure to sunlight or insufficient water level in the pump basket.

Solution: Check the water flow to ensure a constant amount of water entering the pump.

NOTE - The pump is equipped with an automatic thermal-magnetic protection. The motor stops automatically if the current drops to prevent heat buildup and bearing burns. The thermal-magnetic protection allows the motor to restart automatically once cooled. **It continues to stop the motor until the problem is resolved. Ensure to address the cause of overheating.**

THE MOTOR PURRS BUT DOES NOT START. CHECKS

1. The impeller is stuck due to debris.

Solution: Ask a qualified professional repairer to open the pump and remove the debris.

2. The motor is stuck due to several months of storage in its factory packaging or excessive winterization.

Solution: Insert a flat-head screwdriver into the slot at the back of the motor shaft and rotate the shaft until it turns freely. On some models, you may need to remove the metal protective cover to access the motor shaft.

NOTE - All pumps are tested with water before leaving the factory.

THE PUMP DOES NOT PRIME. CHECKS

Pump/pre-filter body empty.

Solution: Ensure that the pump/pre-filter body is filled with water and that the cover O-ring is clean. Check that the O-ring is properly placed in the cover groove. Ensure that the O-ring is lubricated, and the pre-filter cover is securely closed. Lubricant helps to further seal the joint.

Loose connections on the suction side.

Solution: Tighten union connections, pipe fittings, or hose clamps. **NOTE -** Self-priming pumps do not prime in case of air leakage on the suction side. Leaks cause bubbles to appear at the return nozzles on the walls of inground pools.

3. Leakage at the O-ring of a valve. **Solution:**

Tighten, repair, or replace the valve.

4. Pre-filter or skimmer basket full of debris.

Solution: Remove the cover of the pre-filter or skimmer body, clean the basket, and refill the pre-filter body with water. Screw on the cover.

5. Clogged inground pool suction hose.

Solution: Contact a qualified professional repairer to perform a vacuum test. Block the suction to determine if the pump creates a vacuum. A 5"-6" vacuum should be created at the pre-filter cover (only a pool professional can confirm this using a vacuum gauge).

You can potentially check it by removing the filter basket and placing your hand above the lower nozzle when the skimmer is full, and the pump is operating. If you feel no suction, check for blockages.

- a. If the pump creates a vacuum, check if the suction hose is blocked or if the pre-filter basket is clogged. Air leakage in the suction hose may be the cause of the problem.
- b. If the pump does not create a vacuum and has enough water for priming:

Check for air leaks at the pre-filter body cover and all threaded connections. Check and tighten all clamps for above-ground pools.

Check the voltage to ensure the motor is running at full speed.

Open the cover and ensure the suction system is not obstructed. Check for debris at the impeller.

Remove and replace the sealing gasket in case of a leak.

LOW FLOW. CHECKS

1. Clogged or restricted pre-filter or suction hose.

Solution: Check for visible debris and remove if necessary. If the problem persists, contact a qualified professional repairer.

2. Pool hoses too small.

Solution: Use hoses of correct dimensions.

3. Blocked or restricted filter discharge hose, partially closed valve (high gauge value).

Solution: For sand filters, perform a backwash according to the manufacturer's instructions. For diatomaceous earth filters, perform a backwash according to the manufacturer's instructions. For cartridge filters, clean or replace the cartridge.

Air leakage at the suction (bubbles coming out of return nozzles).

Solution: Tighten suction and discharge fittings and use Teflon tape. Inspect other pipe fittings and tighten if necessary.

Blocked, restricted, or damaged impeller.

Solution: Contact a qualified professional repairer to install a new impeller and seal the assembly.

NOISY PUMP. CHECKS

1. Air leakage in the suction hose, cavitation caused by a narrow or too-small suction hose, leakage at a joint, low water level in the pool, free discharge hose.

Solution: Correct the suction or tighten fittings, if possible. To check, sometimes placing your hand above the discharge fitting or a smaller ball valve can be sufficient.

2. Vibration resulting from incorrect mounting, etc.

Solution: Mount the pump on a level surface and securely fix it in place.

3. Foreign objects in the pump body. Loose debris/stones hitting the impeller can generate noise.

Solution: Turn off or disconnect the pump from the power source and clean the pump body. Check for visible debris in the lower part of the pump, near the impeller.

4. Motor bearings are noisy due to normal wear, rust presence, overheating, or chemical concentration causing damage to the seal. Chlorinated water can penetrate the bearings, removing grease and causing rust on the motor shaft and bearing squeaking.

Solution: All leaking seals must be immediately replaced. Ask a qualified pump specialist to replace the motor shaft seals and inspect the motor shaft for damage. If the shaft is damaged, replace the motor.

WATER LEAKS AT SUCTION AND DISCHARGE CONNECTIONS. CHECKS

1. Loose union fittings or hose connections.

Solution: Tighten the fittings or remove them, apply Teflon tape, and reposition the fittings.

2. Loose hose clamps on the hoses.

Solution: Tighten the hose clamps on the hoses using a wrench or socket driver instead of a screwdriver.

3. Leaks persist after trying the solutions suggested above.

Solution: Check that union fittings and hose connections do not have excess plastic around the molding, which may hinder proper sealing of the pipework. If you identify excess plastic, remove it using a fine file or a knife blade, then reassemble the fitting. If the fitting still does not seal, replace it and reassemble the pipework with the new fitting.