



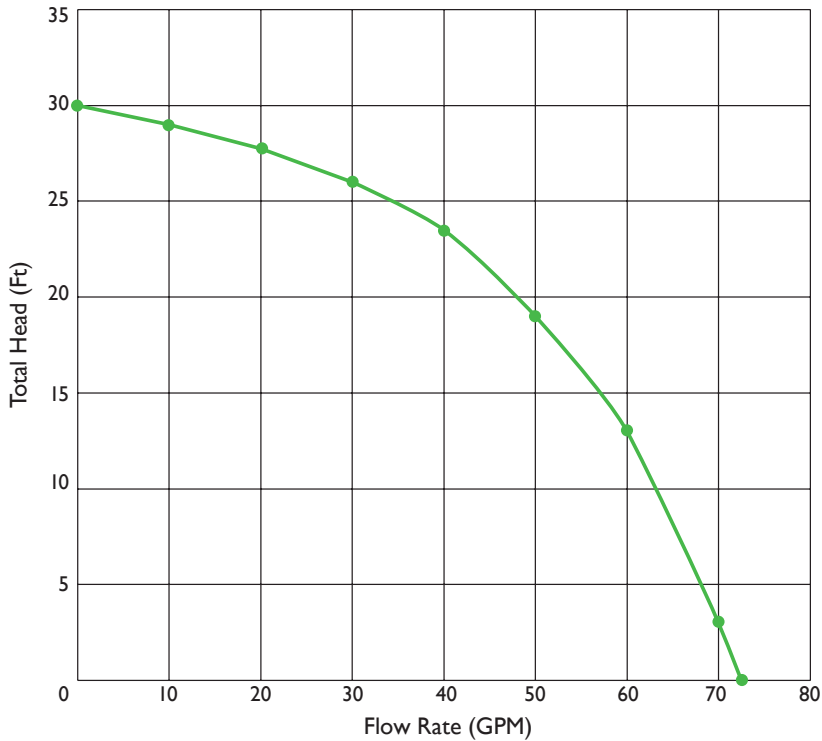
**1/2 HP PRIMARY
SUMP PUMP**

INSTALLATION AND OPERATING INSTRUCTIONS



PS500
PumpSpy
2723 Kersten Ct
Kalamazoo, MI 49048

PUMP PERFORMANCE



SPECIFICATIONS

Power Supply Requirements	115 VAC, 60Hz
Motor Amp Rating	7.0 Amp Single Phase – Insulating Oil Filled
Liquid Temperature Range	40°F to 120°F
Circuit Requirements	15 Amp (Minimum)
Discharge	1 1/2" NPT
Minimum Basin Diameter	14" Diameter

IMPORTANT!

READ ALL INSTRUCTIONS CONTAINED IN THIS MANUAL BEFORE USING THIS PRODUCT.
Save these instructions for future reference. Failure to read and follow the warnings and instructions within this instruction manual could result in property damage, serious injury or death.

SAFETY FIRST!

This instruction manual contains very important information for you to know and understand. This information is provided for your safety and to help prevent equipment problems from occurring. Please observe all safety information labeled danger, warning, caution, and notice.



WARNING

WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH, SERIOUS INJURY OR MAJOR PROPERTY DAMAGE.

RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

WARNING! To reduce the risk of electrical shock, this pump must be properly grounded in accordance with the National Electric Code (NEC) and all applicable state and local codes and ordinances. The receptacle should be protected with a Ground Fault Circuit Interrupter (GFCI).

WARNING! To reduce the risk of electrical shock, always disconnect the pump from the power source **BEFORE** handling or servicing.

WARNING! Never remove the ground prong from the plug, or use an adapter that eliminates the ground prong.

WARNING! Never plug this pump into an electric outlet while standing on a wet surface.

WARNING! Cable should be protected at all times to avoid punctures, cuts and abrasions that may result in exposed wiring. Never handle connected power cords with wet hands.

WARNING! This Submersible Sump Pump has not been investigated for use in or around swimming pools, marine areas, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.

WARNING! Do not use an extension cord. Extension cords could present a safety hazard if not properly sized, become damaged or the connection falls into the sump pit.



RISK OF EXPLOSION. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

WARNING! Do not use to pump flammable or explosive liquids such as gasoline, fuel oil, kerosene, etc.

WARNING! Do not use in a flammable or explosive atmosphere.



NOT SUITED FOR POTABLE WATER APPLICATIONS.

WARNING! Do not use this pump to transfer water that will be used for potable (drinking) water. This pump is only to be used in applications for which it is designed.



CAUTION

CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR INJURY OR PROPERTY DAMAGE.

TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:

CAUTION! Do not block or restrict discharge hose. Discharge hose may whip under pressure. It is strongly recommended to use rigid piping and fittings to secure the pump in the sump basin to reduce movement.

CAUTION! Do not install the pump if it has been damaged in any way.

CAUTION! Do Not carry or lift the pump by the power cord. Use the pump's lift ring.



INSTALLATION

1. Set the pump on a solid, level surface in the bottom of the sump pit. If necessary, use bricks / blocks to provide a solid base. Avoid placing the pump on loose gravel, earth or sand.
2. Install discharge plumbing according to state and local codes. It is highly recommended that rigid 1.5" PVC is used for the discharge line. Installing a union in the discharge line will make it easier to remove the sump pump for maintenance. The discharge line must be sloped downward away from the foundation to ensure that the water drains away and that the discharge line will not freeze during cold spells.
3. Install a check valve in the discharge line. The check valve may be positioned above the sump basin for ease of service and/or replacement.
4. Drilling a weep/air bleed hole in the discharge pipe is not necessary, nor recommended.
5. Secure all cords to the discharge pipe using cable ties to prevent switch entanglement.
6. Fill the sump basin with water until the float rises and starts the pump cycle. The pump will stop when the water level falls to the switch's off position. Repeat this several times to ensure proper operation and that the switch operates freely.
7. Install the sump basin gasket / cover.

NOTICE

This pump is not designed to handle salt water, brine, laundry discharge, water softener discharge or any other application which may contain caustic chemicals. Damage to the pump may occur and will void the pump's warranty.

TROUBLESHOOTING



CAUTION! Always disconnect the pump from the electrical power source BEFORE handling or servicing.

PROBLEM	POTENTIAL CAUSE	POSSIBLE SOLUTION
Pump Will Not Run	<ol style="list-style-type: none"> 1. Blown fuse, tripped breaker or tripped GFCI 2. Low Line Voltage 3. Switch obstructed 4. Insufficient water level 5. Motor Failure 6. Switch Failure 	<ol style="list-style-type: none"> 1. Check all electrical connections. Check for blown fuses, tripped GFCI or tripped circuit breaker. 2. Contact a licensed electrician. 3. Remove obstruction and check for free movement. 4. Water needs to rise to a level that activates the switch 5. Replace switch
Pump Cycles too frequently	<ol style="list-style-type: none"> 1. Switch Failure 2. Check valve not present or not operating properly 	<ol style="list-style-type: none"> 1. Replace switch 2. Install or replace the check valve
Pump Shuts off and turns on independent of switch (trips thermal overload protector). CAUTION! Pump may start unexpectedly. Disconnect power supply.	<ol style="list-style-type: none"> 1. Low line voltage 2. Impeller jammed, worn or damaged 3. Inlet blocked or discharge blocked 4. Excessively high water temperature entering the sump pit 	<ol style="list-style-type: none"> 1. Contact a licensed electrician. 2. Replace Impeller. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Pump should not be used for water above 120° F
Pump runs continuously	<ol style="list-style-type: none"> 1. Switch failure 2. Switch obstructed 3. Inlet blocked or discharge blocked 4. Excessive inflow or pump not properly sized 	<ol style="list-style-type: none"> 1. Replace switch 2. Remove obstruction and check for free movement. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size
Pump operates noisily or vibrates excessively	<ol style="list-style-type: none"> 1. Impeller obstructed or damaged 2. Piping attachments too rigid or too loose to building structure 	<ol style="list-style-type: none"> 1. Clean and / or replace impeller 2. Install a rubber coupling to isolate pump vibration for discharge line.
Pump runs but delivers insufficient capacity	<ol style="list-style-type: none"> 1. Low line voltage 2. Impeller obstructed, worn or damaged 3. Inlet blocked or discharge blocked 4. Pump undersized for application 5. Check valve stuck closed or installed backwards 	<ol style="list-style-type: none"> 1. Contact a licensed electrician 2. Clean and / or replace impeller 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size 5. Remove and examine check valve for proper installation and free operation

LIMITED THREE-YEAR WARRANTY

WHAT THIS WARRANTY COVERS

When used and maintained in normal use and in accordance with the Installation and Operating Instructions, your PumpSpy product is warranted against original defects in material and workmanship for a full three years from date of purchase (the "Warranty Period"). During the warranty period, PumpSpy will repair or replace at no cost to you, to correct such defects in products found upon examination by PumpSpy to be defective in materials or workmanship.

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover use of the product in a non-residential application, improper installation and/or improper maintenance of the product, damage due to misuse, acts of God, nature, vandalism or other acts beyond the control of PumpSpy, owner's acts or omissions, use outside the country in which the product was initially purchased and resales of the product by the original owner. This warranty does not cover pick up, delivery, transportation or house calls. However, if you mail your product to PumpSpy for warranty service, cost of shipping will be paid one way. This warranty does not cover any PumpSpy products purchased from a party that is not a PumpSpy authorized retailer, dealer or distributor.

OTHER IMPORTANT TERMS

This warranty is not transferable and may not be assigned. This warranty shall be governed and construed under the laws of the state of Michigan. The warranty period will not be extended by any replacement or repair performed under this warranty. THIS WARRANTY IS THE EXCLUSIVE WARRANTY AND REMEDY PROVIDED BY PumpSpy. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OR MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT WILL PUMPSPY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE TO OWNER OR ANY PARTY CLAIMING THROUGH OWNER WHETHER BASED IN CONTRACT, NEGLIGENCE, TORT OR STRICT PRODUCTS LIABILITY OR ARISING FROM ANY CAUSE WHATSOEVER. Some states do not allow for the exclusion of consequential damages, so the above exclusion may not apply to you. This warranty gives you specific rights. You may also have others that vary state to state.

NOTES:

Installer: _____

Serial Number: _____

Date of Installation: _____

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