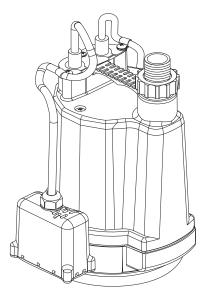


# OPERATION & OPERATION MANUAL SUBMERSIBLE AUTOMATIC UTILITY PUMP

Models: 91046 91246





## SAFETY GUIDELINES

Carefully read, understand and follow all safety instructions in this manual.

This is the safety alert symbol. When you see this symbol, look for one of the following signal words.

DANGEF

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING** 

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**ACAUTION** 

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates important information, that if not followed, may result in damage to the equipment.

## SAFETY INFORMATION

Read these warnings carefully. Know the application and limitations of this pump. Failure to follow these warnings could result in serious bodily injury and/or property damage.

🛦 DANGER

RISK OF ELECTRIC SHOCK. Disconnect and lockout power supply before removing old pump or installing or servicing this pump.

**DANGER** 

RISK OF ELECTRIC SHOCK. This pump is supplied with a grounding conductor and grounding type attachment plug. To reduce the risk of electric shock, be

certain that it is connected only to a properly grounded, grounding type receptacle. For added safety, it is highly recommended to connect this pump to a GFCI (Ground Fault Circuit Interrupter) outlet. Connect only to a receptacle that is adequately rated for the voltage and amperage of this pump.

**▲**WARNING

The installation of this pump must be in accordance with the National Electric Code (NEC), Uniform Plumbing Code (UPC), International Plumbing Code (IPC) as well as all applicable local codes and ordinances.

**▲WARNING** 

Do not install this pump in any location classified as hazardous by the National Electrical Code, ANSI/NFPA70.

**⚠** CAUTION

Do not use this pump to pump flammable or explosive fluids such as gasoline, kerosene, etc. Do not use this pump in flammable or explosive environments. Use only with liquids compatible with pump component materials.

**WARNING** 

RISK OF ELECTRIC SHOCK. This pump has not been investigated for use in swimming pool or marine areas.

**AWARNING** 

RISK OF ELECTRIC SHOCK. DO NOT use the power cord to handle or transport the pump. The cord may pull apart exposing bare wires which could cause a fire or electric shock. Use the handle supplied with the pump for installing and removing the pump.

**▲**WARNING

Do not run the pump dry. This pump relies on water for cooling. Running the pump dry can cause the pump to overheat and the possibility of burns to anyone that handles the pump. Running the pump dry will void the warranty.

**♠** WARNING

Do not use this pump for potable/drinking water. Use only in applications for which the pump is designed.

**▲** WARNING

Make certain that the electrical outlet is within the reach of the power supply cord. DO NOT USE AN EXTENSION CORD. Extension cords that are too long or too light do not deliver sufficient voltage to the pump motor. More importantly, they present a safety hazard if the insulation were to become damaged or the connection end were to fall into the water.

DO NOT UNDER ANY CIRCUMSTANCES REMOVE THE GROUND PIN. **AWARNING** The 3-prong plug must be inserted into a mating 3-prong grounded receptacle. If the installation does not have such a receptacle, it must be changed to the proper type, wired and grounded in accordance with the National Electric Code (NEC) and all applicable local codes and ordinances.

# **SAFETY GUIDELINES (continued)**

<b>A</b> WARNING	All wiring must be performed by a qualified electrician.
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<b>▲</b> WARNING	Keep hands clear of suction and discharge openings. To prevent injury, never insert fingers into pump while it is plugged in.
	insert inigers into pump wille it is plugged in.

<b>▲</b> WARNING	Do not handle this pump with wet hands or while standing on wet or damp surfaces or in water.

<b>▲</b> CAUTION	This pump motor is equipped with an automatic resetting thermal protector and may restart unexpectedly.
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# **DESCRIPTION**

This automatic submersible utility pump is designed to remove water from, flooded basements, window wells and stock tanks, etc. The permanent split capacitor motor is oil filled and hermetically sealed for cooler operation. The pump comes equipped with a 3-prong grounding type power cord.

# **SPECIFICATIONS**

	91046	91246	
НР	1/6	1/4	
Volts	115 V		
Amps	2 A	3.5 A	
Hz	60 Hz		
Phase	Single		
Motor Operation	3450 RPM		
Motor Type	Permanent split capacitor (PSC)		
Motor Protection	Auto reset thermal overload protector		
Discharge Size	1" (2.5 cm) MNPT   3/4" (1.9 cm) GHT adapter included		
Max. Solids Handling	1/8" (.3175 cm)		
Liquid Temp. Range	32-104°F (0-40° C)		
Cord Length	10' (	3 m)	
Pump Housing	Thermoplastic		
Pump Base	Thermoplastic		
Impeller Material	Thermoplastic		
Fasteners	Stainless Steel		
Max. PSI	8.5 PSI (58.6 kPa)		

#### UNPACKING

 Upon receiving the pump, it should be inspected for damage or missing parts. If you have concerns please contact customer support at 800-495-9278

## INSTALLATION

 Attach a discharge hose (sold separately) to the 1" (25.4 mm) discharge using an adapter (sold separately). Extend the hose making sure there are no kinks or tight bends. NOTE: To keep friction loss as low as possible, do not use a hose that is smaller than 1/2" (12.7 mm) inside diameter.

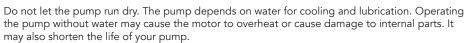
#### OR

Thread the 3/4" (19 mm) garden hose adapter onto the pump discharge. Attach a garden hose (sold separately) to the garden hose adapter. Extend the hose making sure there are no kinks or tight bends. NOTE: To keep friction loss as low as possible, do not use a hose that is smaller than 1/2" (12.7 mm) inside diameter.

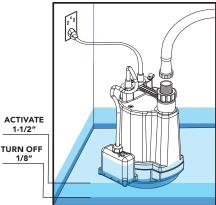
2. Install the pump on a hard, level surface in the water. If necessary, place bricks or patio blocks under the pump to raise it off the bottom. Do not place the pump directly in mud, sand or silt or on rocky surfaces as these materials can clog or cause damage to the pump.

## **OPERATION**

- Connect the plug into a 115 V AC grounded outlet. The use of a GFCI is strongly recommended.
- 2. The pump will turn on once the water level reaches approximately 1-1/2" (38.1 mm). The water level must be high enough to activate the switch located on the side of the pump.
- 3. The pump will remove water down to approximately 1/8" (3 mm) of the surface. Once the water reaches that level, the pump will run for approximately 45 seconds and then turn off. It is normal for the pump to operate in this situation even though no water may be flowing.
- 4. The pump is automatic and can remain plugged in. The pump will automatically turn on once the water level reaches 1-1/2" (38.1 mm) again.

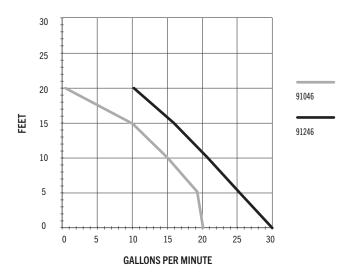


- 5. This pump is equipped with an anti-airlock hole. A stream of water will emit from this hole when the pump is operating. This is a normal feature of this pump. The anti-airlock hole should be cleaned periodically to prevent the pump from becoming air-locked.
- **6.** This pump motor is thermally protected. It is not recommended for pumping liquids over 104°F (40°C). The thermal overload protector will automatically shut down the pump in an overheat situation. The pump will reset itself once the pump cools down. This overload is designed as a safety device and it will fail after repeated use. Normal operation is for fluids between 32 and 104°F (0 and 40°C).



## **PERFORMANCES**

Height, pipe diameter restriction and hose length will reduce the pump output performance. It is recommended to use the same size or larger pipe/ hose as the pump discharge for optimum performance. The performances listed below were obtained by using 1-1/4" pipe. The use of a garden hose will reduce the output depending on size and length of hose used. To keep friction as low as possible, the hose must be 1/2" or larger. Use the shortest length of hose possible for your application.



Gallons Per Minute @ Discharge Height*					
Model	0'	5'	10'	15'	20'
91046	20	19	16	10	1
91246	30	26	22	17	11

<sup>\*</sup>Performances listed were obtained by using 1-1/4" pipe. Use of garden hose or smaller diameter hose/pipe will reduce flow.

## **MAINTENANCE**

- The pump motor is hermetically sealed in the housing and does not require any service.
  Disassembly of the motor housing or modification of the power cord voids the warranty.
- 2. Periodically check the intake screen for obstructions. Clean if necessary.
- **3.** Inspect the impeller for signs of wear and obstructions.
- **4.** Inspect the power cord for signs of damage or wear. Do not operate the pump if the cord is damaged or worn.

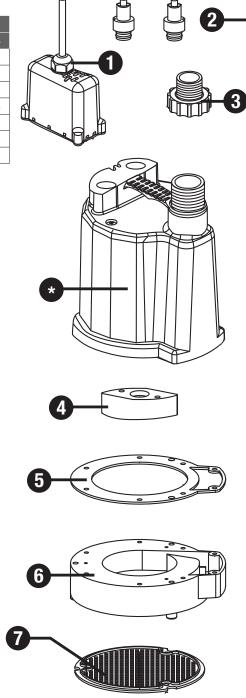
# **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSES	HOW TO CORRECT
	Pump is not plugged in; switch or breaker is off.	Plug pump in or turn on switch/breaker.
The pump does not	Check for blown fuses or tripped circuit breakers or tripped GFCI outlets.	Replace fuse; reset breaker; reset GFCI outlet.
start or run.	Motor thermal protector tripped.	Allow pump to cool. Pump will reset automatically.
	Water level is not high enough	Wait until water level activates the switch or turn pump upside down to activate, then place in the water.
	Switch housing is clogged.	Clean/remove clog.
	Clogged intake screen.	Clean or replace screen.
	Clogged discharge hose/pipe.	Remove clog.
	Frozen discharge hose/pipe.	Allow hose/pipe to thaw.
Pump runs but	Low line voltage / Improper size extension cord	Check supply voltage and/or wire size and increase if necessary and/or reduce length
moves little or no water.	Worn, damaged or clogged pump parts.	Inspect for wear, damage or clog and clean or replace if necessary.
	Discharge head exceeds pump capacity or hose length is too long	See performance chart for pump limitations.
	Hose or pipe length is too long	Reduce hose length and/or increase diameter of the hose/pipe to reduce friction loss.

# **REPLACEMENT PARTS**

Dof #	Description	Part Number		
Ref. #		91046	91246	
1	Automatic Switch	99828		
2	Power Cord	99822		
3	Garden Hose Adapter	99003		
4	Impeller	99823 99824		
5	Gasket	99825		
6	Pump Base	99826		
7	Screen	99827		

<sup>\*</sup>If motor fails, replace entire pump.



**TO ORDER PARTS PLEASE CALL: 800.495.9278** 

#### LIMITED WARRANTY - UTILITY PUMPS:

Superior Pump warrants the products specified in this warranty to be free from defects in material or workmanship for one (1) year from date of purchase. During the time period and subject to the terms and conditions, Superior Pump will repair or replace to the original user or consumer any portion of this product which proves to be defective due to materials or workmanship. At all times Superior Pump shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts, or components. Superior Pump has the option to inspect any product returned under warranty to confirm that the warranty applies before repair or replacement under warranty is approved. This warranty sets forth Superior Pump's sole obligation and purchaser's exclusive remedy for defective product. For warranty consideration, call 1-800-495-9278.

#### **WARRANTY PERIOD - PRODUCTS:**

If, within the duration of product use by the original user, this product proves to be defective due to materials or workmanship, the product shall be repaired or replaced at Superior Pump's option, subject to the terms and conditions set forth in this warranty statement. Proof of purchase is required for warranty consideration. In the absence of suitable proof of the purchase date, the effective period of this warranty is 12 months from the product's date of manufacture.

#### LABOR, ETC. COSTS:

Superior Pump shall IN NO EVENT be responsible or liable for the cost of field labor or other charges incurred by any customer in removing and/or affixing any product, part, or component thereof.

#### PRODUCT IMPROVEMENTS:

Superior Pump reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such change or improvement.

#### **GENERAL TERMS AND CONDITIONS:**

This warranty shall not apply to damage due to acts of God, normal wear and tear, normal maintenance services and the parts used in connection with such service, lightning or conditions beyond the control of Superior Pump, nor shall it apply to products which, in the sole judgment of Superior Pump, have been subject to negligence, abuse, accident,misapplication, tampering, alteration; nor due to improper installation, operation, maintenance or storage; nor to excess of recommended maximums as set forth in the instructions. Warranty will be VOID if any of the following conditions are found:

- 1. Product is used for purposes other than those for which it was designed and manufactured.
- 2. Product not installed in accordance with applicable codes, ordinances, and good trade practices.
- 3. Product connected to voltage other than indicated on nameplate or labels.
- Pump exposed to but not limited to the following: sand, gravel, cement, grease, plaster, mud, tar, oil, gasoline, solvents or other abrasive or corrosive substances.
- 5. Pump has been used for pumping liquids above 120°F.
- 6. Pump allowed to operate dry (liquid supply cut off).

#### **DISCLAIMER:**

Any oral statements about the product made by the seller, Superior Pump, the representatives, or any other parties do not constitute warranties, shall not be relied upon by the user, and are not part of the contract for sale. Seller's and Superior Pump's only obligation, and buyer's only remedy, shall be the replacement and/or repair by Superior Pump of the product as described above. NEITHER SELLER NOR SUPERIOR PUMP SHALL BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS), ARISING OUT OF THE USE OR THE INABILITY TO USE THE PRODUCT, AND THE USER AGREES THAT NO OTHER REMEDY SHALL BE AVAILABLE TO IT.

Before using, the user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith.

THE WARRANTY AND REMEDY DESCRIBED IN THIS LIMITED WARRANTY IS AN EXCLUSIVE WARRANTY AND REMEDY AND IS IN LIEU OF ANY OTHER WARRANTY OR REMEDY, EXPRESSED OR IMPLIED, WHICH OTHER WARRANTIES AND REMEDIES ARE HEREBY EXPRESSLY EXCLUDED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT EITHER APPLIES TO A PRODUCT SHALL BE LIMITED IN DURATION TO THE PERIODS OF THE EXPRESSED WARRANTIES GIVEN ABOVE.

Some states and countries do not allow the exclusion or limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



superiorpump.com
Customer Service: 800.495.9278