

# 1/3 HP PEDESTAL SUMP PUMP

(Model 92274)

# **ASSEMBLY AND OPERATING INSTRUCTIONS**





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#### TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND ALL WARNINGS AND INSTRUCTIONS BEFORE USE.

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# **PRODUCT SPECIFICATIONS**

ltem	Description
Electrical Requirements	115 V / 60 Hz / 5.2 Start AMPs.
	1/3 HP Motor / Single Phase / 1725 RPM.
	Continuous Run Thermal Overload Protection.
	3-Prong Power Plug / 6 Ft. Long Power Cord.
	Fused Circuit: 15 AMP Capacity Required.
Pump Type	Centrifugal / Pit Type / Self-Priming.
	Maximum Lift: 17 Ft.
	Discharge Size: 1-1/4" Diameter x 11.5 TPI Female.
Maximum Particle Size	1/8" Diameter Solids.
Maximum Water Temperature	140 Degrees Fahrenheit.
Minimum Water Level	2-1/2" Deep.
Pump Down Range	9" To 10".
PH Range	6 To 9.
Overall Dimensions	30" L x 9" W x 33" H.
Weight	13.70 Pounds.

#### SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

#### UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts Lists on page 13** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

#### **GENERAL SAFETY RULES**

#### **IMPORTANT SAFETY INSTRUCTIONS**

READ AND UNDERSTAND ALL INSTRUCTIONS Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

#### SAVE THESE INSTRUCTIONS

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# WORK AREA

- 1. **Keep your work area clean and well lit.** Cluttered and dark work areas invite accidents.
- 2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

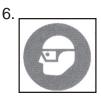
### ELECTRICAL SAFETY

- 1. Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- 2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- 3. **Do not expose the Motor to rain or wet conditions.** Water entering the Motor will increase the risk of electric shock.
- 4. Do not abuse the Power Cord. Never use the Power Cord to pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately. Damaged Power Cords increase the risk of electric shock.
- 5. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W". These extension cords are rated for outdoor use, and reduce the risk of electric shock.

#### PERSONAL SAFETY

- 1. Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
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- 2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. Avoid accidental starting. Be sure the circuit supplying electrical power is off before plugging in. Plugging in a Sump Pump with the electrical circuit on invites accidents.
- 4. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a moving part of the power tool may result in personal injury.
- 5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.



**Always wear eye protection.** Wear ANSI approved safety impact goggles and non-skid rubber boots. A hard hat must be used for appropriate conditions. Wearing work pants and work shirt are recommended.

#### TOOL USE AND CARE

- 1. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- 2. **Do not use the power tool if the Automatic Switch (3) does not turn it on or off.** Any tool that cannot be controlled with an Automatic Switch is dangerous and must be replaced.
- 3. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- 4. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 5. **Maintain tools with care. Keep tools clean.** Properly maintained tools are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
- 6. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly main tained tools.

7. Use only accessories that are recommended by the manufacturer for your **model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

# SERVICE

- 1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 2. When servicing a tool, use only identical replacement parts. Follow instructions in the *"Inspection, Maintenance, And Cleaning"* section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

# GROUNDING

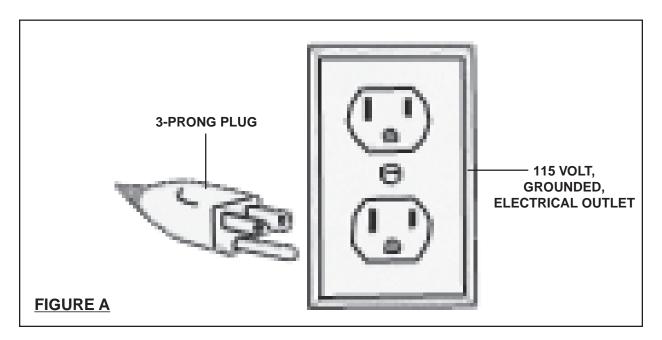
# MARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

#### GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS

- 1. Tools marked with "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity aways from the user, reducing the risk of electric shock. (See Figure A, <u>next page.</u>)
- 2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal. (See Figure A.)

3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like that in the following illustration. (See Figure A.)

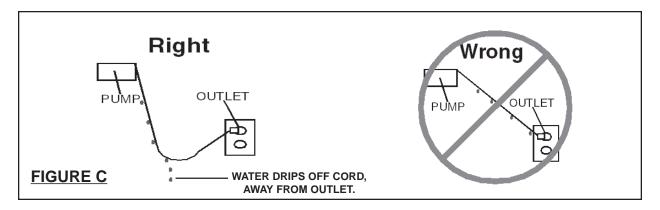


#### SYMBOLOGY

		Double Insulated					
	<b>A</b>	Canadian Standards Association					
		Underwriters Laboratories, Inc.					
	V ~	Volts Alternating Current	1				
	Α	Amperes					
	no xxxx/min.	No Load Revolutions per Minute (RPM)					
FIGURE B			F				

# SPECIFIC SAFETY RULES

- 1. **Maintain labels and nameplates on the Sump Pump.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 2. **Use the right product for the right job.** There are certain applications for which this product was designed. Do not use small equipment, tools, or attachments to do the work of larger industrial equipment, tools, or attachments. Do not use this product for a purpose for which it was not intended.
- 3. **WARNING!** Risk of electrical shock. Always disconnect the Sump Pump from its power source before handling or making any adjustments. Always wear non-skid rubber boots when water is on the floor and you must unplug the Sump Pump. Never allow the Motor to get wet. Make sure the electrical power source is a separately fused, grounded, 3-wire type outlet of 15 AMP capacity. **DO NOT REMOVE THE GROUND PRONG OR PLUG. DO NOT USE AN EXTENSION CORD.**
- 4. **WARNING!** Always arrange a "drip loop" in the Power Cord (1) connecting the Sump Pump to a 115 volt, grounded, electrical outlet. A drip loop is that part of the Power Cord below the level of the outlet to prevent water from traveling along the Power Cord and coming in contact with the outlet. If the Power Plug or electrical outlet *does* get wet, do not unplug the Power Cord. Disconnect the fuse or circuit breaker that supplies power to the Sump Pump. Then, unplug the Power Cord and examine for presence of water in the outlet (See Figure C.)



5. **Do not pump hazardous materials.** Do not pump explosive or flammable materials such as fuel oil, kerosene, gasoline, etc. Do not pump in close proximity to flammable or explosive materials. Do not pump fats, oils, salt or waste water. **The Sump Pump is designed to move clean or dirty water only.** Do not pump water over 140 degrees fahrenheit.

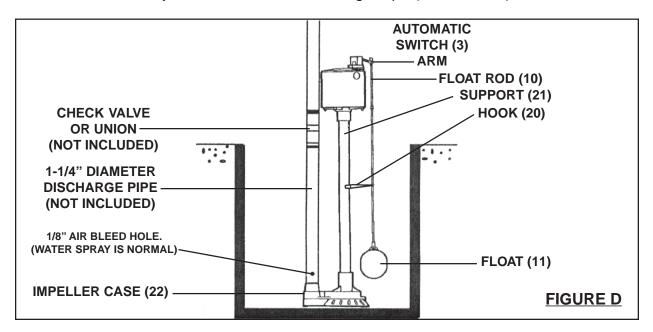
- Water transfers in cycles. Do not attempt to manipulate the automatic Switch (3) to keep the Sump Pump running continuously. It is meant to shut off intermittently. Doing so will damage the Pump.
- 7. Make sure the discharge pipe (not included) is secured to a solid surface to ensure the stability of the Sump Pump.
- 8. Make sure to position the Base Plate (24) of the Sump Pump on a flat, level surface.
- 9. *If necessary,* have a certified electrician install (within six feet of where the Sump Pump will be located) a 115 volt, grounded, electrical outlet that is dedicated only to the Pump. Any outlet must be above the water line.
- 10. In cold weather, when the Sump Pump is not in use, protect the interior of the Pump from freezing by draining the liquid and pumping a permanent type automobile anti-freeze containing a rust inhibitor through the system. A 50% mixture with water is recommended. Be sure to flush the system with a neutralizing liquid prior to re-use of the unit.
- 11. Prior to use, and periodically thereafter, check to make sure all connections are tight and secure.
- 12. Industrial applications must follow OSHA requirements.
- 13. Performance of this machine (if powered by line voltage) may vary depending on variations in local line voltage.
- 14. Prior to use, and periodically thereafter, check to make sure the Float Rod (10) moves freely.
- 15. **WARNING!** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.
- 16. **WARNING!** The warnings and cautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied the the operator.

# SAVE THESE INSTRUCTIONS

# ASSEMBLY AND OPERATING INSTRUCTIONS

**NOTE:** For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram on page 14**.

- 1. *If necessary,* have a certified electrician install (within **six feet** of where the Sump Pump will be located) a 115 volt, grounded, electrical outlet that is dedicated only to the Pump. **Any outlet must be above the water line.**
- 1. **WARNING!** Always make sure the Sump Pump is unplugged from its electrical outlet *prior* to assembling the unit, unclogging the unit, or making any adjustments to the unit.
- 2. Snap the Hook (20) midway onto the Support (21). (See Figure D.)
- 3. Insert the threaded end of the Float Rod (10) downward through the eyelet in the Hook (20). Then, screw on the Float (11). **(See Figure D.)**
- 4. Remove the Upper Rubber Stop on the automatic Switch Arm (3) and insert the top portion of the Float Rod (10) through the hole in the arm of the automatic Switch (3). Then, replace the Upper Rubber Stop at least 1/2" from the end of the Float Rod. **(See Figure D.)**
- 5. Set the Sump Pump in place, making sure the arm of the automatic Switch (3) has adequate clearance and will not hang up on the pit wall. **(See Figure D.)**
- 6. **NOTE:** The size of the discharge outlet on the Impeller Case (22) is 1-1/4" diameter. Only a 1-1/4" diameter Discharge Pipe (not included) must be used.



Do not attempt to reduce the discharge size below 1-1/4" as this will affect Pump flow and performance. A Schedule 40 PVC 1-1/4" diameter Pipe is recommended. (See Figure D.)

- 7. Connect the 1-1/4" diameter Discharge Pipe to the Impeller Case (22) of the Sump Pump. Make sure to hand tighten only. Over tightening may cause the Impeller Case to crack. **NOTE:** Make sure the Discharge Pipe is secured to a solid surface, with appropriate hardware (not included), to ensure the stability of the Sump Pump. **(See Figure D.)**
- Install a Union (not included) or other means of separating the Discharge Pipe just above the floor to facilitate removal of the Sump Pump if necessary. (See Figure D.)
- 9. **NOTE:** A Check Valve (not included) is recommended just above, or in place of, the Union to prevent the backflow of water after each pump cycle. If a Check Valve is used, a 1/8" diameter air bleed hole should be drilled through the Dis charge Pipe just above the Impeller Case (22) to prevent pump "airlock". *A small spray of water out of this hole is normal while pump is running.* (See Figure D.)
- 10. Connect additional Discharge Pipe as needed to direct the discharge to the desired location. The discharge should be kept as short as possible with a minimum number of turns. **NOTE: The maximum lift of the Pump is 17 feet.**
- 11. Plug the Power Cord into the nearest 115 volt, grounded, electrical outlet while making sure to form a "drip loop" in the Power Cord. **(See Figure C.)**
- 12. The Sump Pump is now ready for operation.
- 13. **NOTE:** Periodically, check to make sure all connections are tight and secure. Also, make sure the Float Rod (10) moves freely.

# TROUBLESHOOTING

1. **WARNING!** Always make sure the Sump Pump is unplugged from its electrical outlet *prior* to performing any maintenance to the unit. This Section is designed to help identify reasons for operating problems. It is *not* a service guide. Dismantling the Sump Pump voids warranty. Servicing of the Sump Pump (other than simple cleaning or unplugging) should be done only by a qualified service technician.

#### 2. Pump Motor does not run.

- **A.** Line circuit breaker may be off. Have a certified electrician check the fuse or breaker.
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- **B.** Water level in pit may be too low (Switch has not yet activated). Add more water to pit.
- **C.** Power Cord may not be making contact in electrical outlet. Check connection.
- **D.** Float may be obstructed. Make sure the Float is free and not rubbing against the pit wall or other obstruction.

#### 3. Pump Motor Runs, but does not discharge water.

- A. Check Valve (not included) may be installed backwards or is defective. Check to make sure it is installed properly and flapper in valve is free to move.
- **B.** Discharge Pipe may be frozen or blocked. Check to see if Discharge Pipe passes through cold areas or is blocked.
- **C.** Sump Pump may be airlocked. Check to see if air bleed hole is open.
- **D.** Vertical lift is beyond Sump Pump's capability. Maximum lift capability is 17 feet.
- **E.** Inlet screen of Sump Pump is blocked, or Impeller is jammed. Remove Pump and clean inlet screen and Impeller.

#### 4. Pump Motor runs and discharges water, but will not shut off.

- **A.** Float is stuck in the "ON" position. Check to make sure Float is free to move up and down without interference.
- **B.** Switch is not working. Have a qualified service technician replace Switch.

#### 5. **Pump Motor runs, but delivers small amount of water.**

- **A.** Vertical lift is approaching Sump Pump's maximum lift capability. Maximum lift capability is 17 feet. Reduce height of vertical lift.
- **B.** Inlet is partially blocked. Check to make sure inlet is clear of debris.
- **C.** Discharge Pipe is partially blocked. Check Pipe for blockage.
- **D.** Check Valve is not opening all the way. Check for defective or blocked Check Valve.

#### 6. **Circuit breaker trips or fuse blows when Sump Pump starts.**

- **A.** Breaker or fuse size is too small. A minimum 15 AMP breaker or fuse should be used.
- **B.** Other major appliances are on the same circuit. Sump Pump should be on its own separate circuit.
- **C.** Sump Pump is connected to an extension cord, or wiring is inadequate. **DO NOT USE EXTENSION CORDS**. Have a certified electrician check for proper wiring.
- **D.** Switch or Motor not working. Have a qualified service technician check Switch and Motor for proper operation.

# **INSPECTION, MAINTENANCE, AND CLEANING**

- 1. **WARNING!** Make sure the Sump Pump is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
- 2. **Before each use,** inspect the general condition of the Sump Pump. Check for clogs throughout the system, misalignment or binding of moving parts, damaged electrical wiring, damaged or loose discharge pipes, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
- 3. **Every six months,** pour an ounce of 30 weight oil into the hole near the top of the Support (21). A label next to the hole indicates where to add the oil.
- 4. The Motor is permanently lubricated and requires no additional lubrication.
- 5. **If the Sump Pump is not in use due to dry conditions, etc.,** pour enough water into the pit to activate the Pump once every 3 months.
- 6. **Periodically,** check to make sure the pit is free from accumulated debris, rocks, and other objects that may damage the Sump Pump.
- 7. **When cleaning,** NEVER introduce water or any other liquid into the Motor Housing.
- 8. **In cold weather,** when the Sump Pump is not in use, protect the interior of the Pump from freezing by draining the liquid and pumping a permanent type automobile anti-freeze containing a rust inhibitor through the system. A 50% mixture with water is recommended. Be sure to flush the system with a neutralizing liquid prior to re-use of the unit.
- 9. **CAUTION!** All maintenance, service, or repairs not listed in this manual are only to be attempted by a qualified service technician.

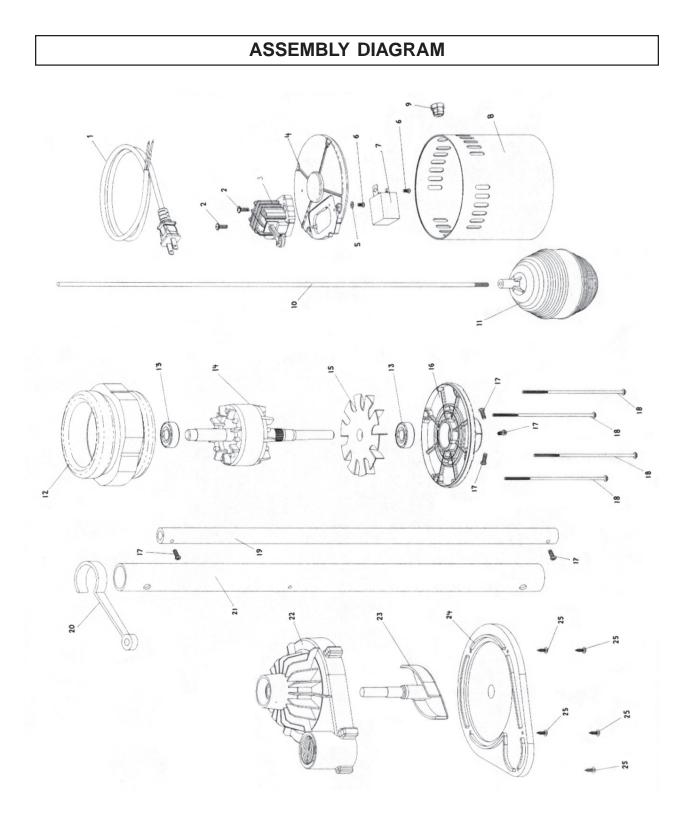
# PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

#### PARTS LIST

Part #	Description	Qty.	Part #	Description	Qty.
1	Power Cord	1	14	Rotor	1
2	Screw	2	15	Fan	1
3	Switch	1	16	Front Cover	1
4	Motor Rear Cover	1	17	Screw	5
5	Star Washer	1	18	Screw	4
6	Screw	2	19	Shaft	1
7	Capacitor	1	20	Hook	1
8	Motor Enclosure	1	21	Support	1
9	Cable Clamp	1	22	Impeller Case	1
10	Float Rod	1	23	Impeller	1
11	Float	1	24	Base Plate	1
12	Stator	1	25	Screw	5
13	Bearing	2			

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.



NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

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