

# Owner's Manual & Safety Instructions

**Save This Manual** Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

19i



## 1/4 HP SUBMERSIBLE UTILITY PUMP

### WITH FULLY AUTOMATIC ON/OFF OPERATION



**Do not return  
pump to the store.  
Call 1-844-416-9141**

**56599**

Visit our website at: <http://www.harborfreight.com>  
Email our technical support at: [productsupport@harborfreight.com](mailto:productsupport@harborfreight.com)

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.  
Tools required for assembly and service may not be included.

## **⚠ WARNING**

Read this material before using this product.  
Failure to do so can result in serious injury.  
**SAVE THIS MANUAL.**

## Before start-up, note the following:


The pump must be connected to a GFCI protected plug which has been installed according to regulations. The plug must have a supply voltage of 120 VAC at 60 Hz.

## CAUTION

This pump has been evaluated for use with water only.

## ⚠WARNING

**IMPORTANT! For your own safety – before starting to run the pump, please have the following items checked by an expert:**

1. 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.
2. Risk of electric shock – This pump has not been investigated for use in swimming pool areas.
3. The electrical connections must be protected from moisture.
4. If there is danger of flooding, the electrical connections must be taken to higher ground.
5. Circulation of caustic fluids, as well as the circulation of abrasive materials, must be avoided at all costs.
6. The pump must be protected from frost.
7. The pump must be protected from running dry.
8. Access by children should also be prevented with appropriate measures.
9.  **To prevent death from electric shock, pump must be connected only to a GFCI protected outlet.**
10. Do not use an extension cord with this item.
11. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
12. **Do NOT use pump if any part of the switch housing or probe (inside switch housing) is cracked, broken, or missing.**
13. **This unit is NOT designed for use as a sump pump or in sump applications. This unit is NOT designed for use in septic tanks or underground vaults to pump raw sewage or effluents. NEVER use in hazardous or explosive locations.**

14. Do not pump flammable or explosive liquids such as oil, gasoline, kerosene, ethanol, etc. Do not use in the presence of flammable or explosive vapors. Using this pump with or near flammable liquids can cause an explosion or fire, resulting in property damage, serious personal injury, and/or death.
15. **Always use the handle to lift the pump. Never use the power cord to lift the pump. To avoid skin burns, unplug the pump and allow time for it to cool after periods of extended use.**
16. Do not touch the motor housing during operation. The motor is designed to operate at high temperatures. Do not disassemble the motor housing.
17. ALWAYS disconnect the power to the pump before servicing.
18. Release all pressure and drain all water from the system before servicing any component.
19. Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury, and/or property damage.
20. Wear safety goggles at all times when working with pumps.
21. Protect the electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking the cord. Do not use damaged or worn cords.
22. Failure to comply with the instruction and designed operation of this unit may void the warranty. **ATTEMPTING TO USE A DAMAGED PUMP can result in property damage, serious personal injury, and/or death.**
23. Ensure that the electrical circuit to the pump is protected by a 10 Amp fuse or circuit breaker.
24. Know the pump and its applications, limitations, and potential hazards.
25. Pump must rest flat and horizontal on a solid base. This will aid in keeping the pump in a vertical orientation. This is critical in keeping the pump operating at maximum efficiency. It will also help prevent the pump from clogging resulting in premature failure.

26. Periodically inspect the pump and system components to ensure the pump suction screen is free of mud, sand, and debris. Disconnect the pump from the power supply before inspecting.
27. Follow all local electrical and safety codes, along with the National Electrical Code (NEC). In addition, all Occupational Safety and Health Administration (OSHA) guidelines must be followed.
28. The motor of this pump has a thermal protector that will trip if the motor becomes too hot. The protector will reset itself once the motor cools down and an acceptable temperature has been reached. The pump may start unexpectedly if it is plugged in.
29. Before using the pump, check the hose for holes or excess wear, which could cause leaks, and ensure the hose is not kinked or making sharp angles. A straight hose allows the pump to move the greatest amount of water quickly, and also check that all hose connections are tight to minimize leaks.
30. This pump is made of high-strength, corrosion-resistant materials. It will provide trouble-free service for a long time when properly installed, maintained, and used. However, inadequate electrical power to the pump, dirt, or debris may cause the pump to fail. Please carefully read the manual and follow the instructions regarding common pump problems and remedies.
31. This pump is fully automatic in operation. If the water level is over 2 in., the water detector senses water. Then the control system built in the pump automatically starts the pump and the pump continues to run until water is pumped down to 3/4 in. deep, and then it stops. If the water level is not over 2 in., the pump will not start.
32. Electric shock hazard! GFCI receptacles will provide protection against line to ground faults only. The ground fault receptacle does NOT limit the magnitude of fault current and will NOT prevent an electrical shock. Replace damaged cord immediately.
33. Risk of electric shock. This pump has NOT been tested for use in marine areas.
34. Do not move, position, retrieve, or carry pump using the power cord or the discharge hose, damage to the pump or power cord may occur. Use the handle supplied on the pump or attach a string to the strainer to position as instructed.
35. The warnings, precautions, and instructions discussed in this instruction 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 by the operator.

## Fluid Type

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The Pump is designed for use with water at a maximum temperature of 95° F (35°C) and minimum of 32° F (0° C). Do not use the pump for other fluids, especially not fuels, cleaning fluids, or other chemical products.

# Grounding

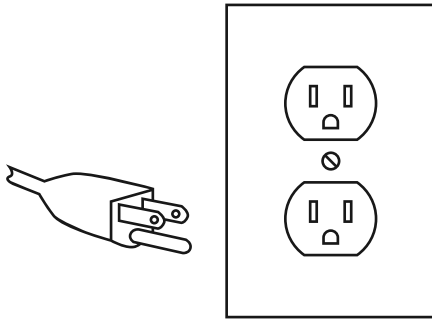
## ⚠️ WARNING



**TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:**

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



**3-Prong Plug and Outlet**

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 away from the user, reducing the risk of electric shock. (See “3-Prong Plug and Outlet”.)

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 “3-Prong Plug and Outlet”.)
3. The 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 those in the preceding illustration. (See “3-Prong Plug and Outlet”.)

## Extension Cords

Extension cords must not be used with this pump.

## Symbology

<b>V</b>	Volts
~	Alternating Current
<b>A</b>	Amperes
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.

	Read the manual before set-up and/or use.
	WARNING marking concerning Risk of Electric Shock. Properly connect power cord to appropriate outlet.

## Specifications

Horse Power	1/4 HP
Electrical Rating	120VAC / 60Hz / 2.0A
Power Cord Length	25'
Maximum Flow @ 0'	1750 GPH
Maximum Head lift @ 0' Flow	26'
Discharge Port	1" NPT
Check Valve Output Port	3/4" Female NPT
Operating Water Depth	Minimum 2"

## Installation

### **⚠️ WARNING**

**TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:  
Unplug the Pump from its electrical outlet before setup or installation.**

The utility pump must be installed upright and in a stationary position with a flexible hose.

### **Please note!**

1. Do not install the pump by suspending it unsupported from its discharge hose or power cord. The pump must be placed level at the bottom of a surface. To ensure that the pump works properly, keep the bottom free from sludge and dirt of all kinds.
2. If the water level sinks too low, any sludge on the surface will dry out and stop the pump from starting. To help ensure the pump will start as required, check the pump regularly with start-up tests.

## Power Supply

1. The pump is equipped with a shock-proof plug according to regulations. The pump is designed to be connected to a 120 VAC, 60Hz GFCI protected circuit.
2. Make sure that the plug and socket are sufficiently secured and in excellent condition.
3.  **WARNING: To prevent death from electric shock, pump must be connected only to a GFCI protected outlet.**

**WARNING!** If the power cord or plug is damaged, do not use the pump. The power cord or plug may only be repaired by a certified electrician.

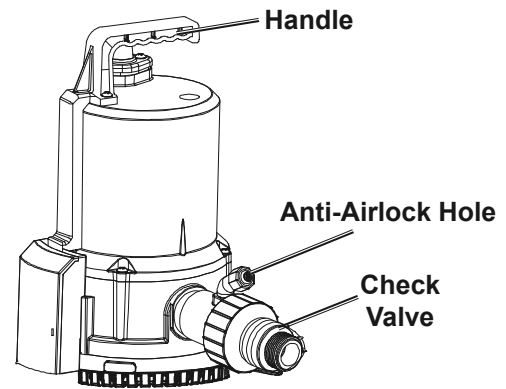
## Areas of use

1. This pump is designed for water removal only:  
Removing water from crawl spaces, window wells, flat roofs, and flooded yards.
2. This pump should NOT be used for water transfer or:  
Continuous run, fountain/pond water features.  
Permanent basement sump systems.  
Septic or sewage systems.



## Connecting Check Valve

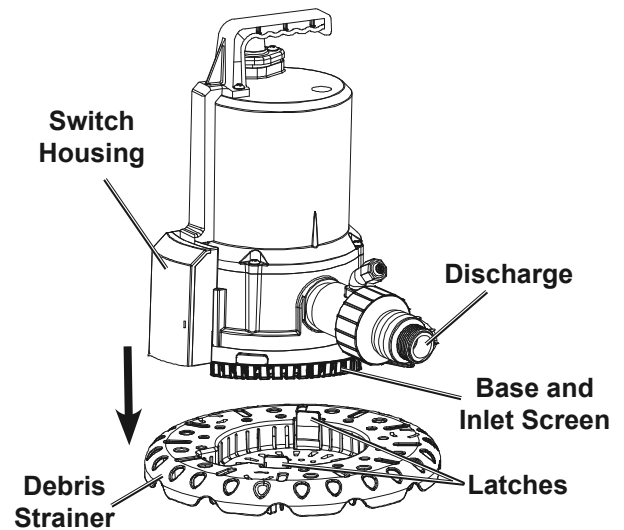
Screw the Check Valve into the pump outlet until tight. Be sure the anti-airlock hole is pointing upward.



## Connecting Debris Strainer

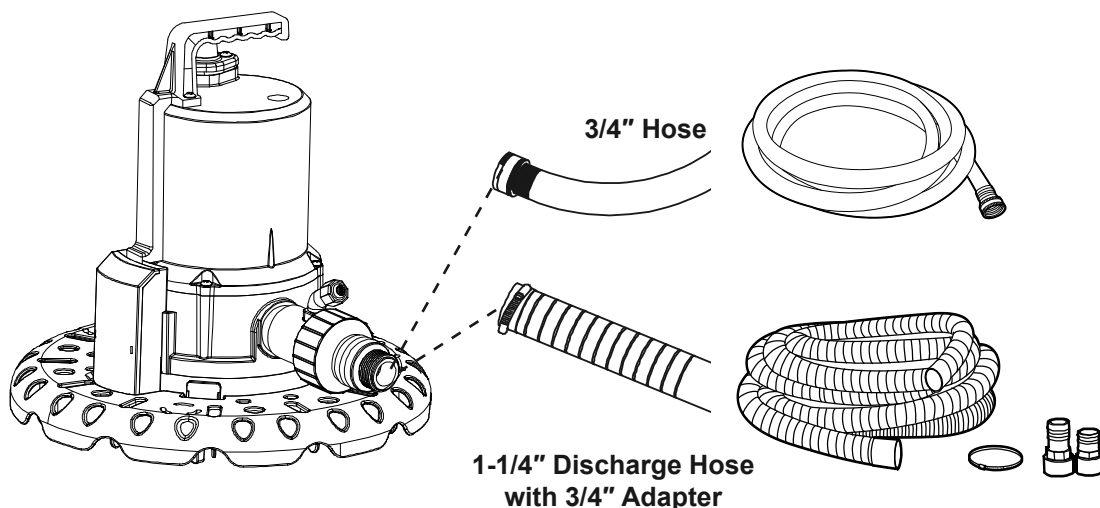
1. Align the pump base to the Debris Strainer using the Switch Housing as a guide.
2. Guide the back of the pump (opposite discharge) into the strainer. Once the back of the pump is aligned push it down into the strainer and rotate until it latches in place.
3. To remove the strainer, press to release the latch and guide the pump out.

**Notice:** Always use the pump with the Debris Strainer attached, to filter out debris and stabilize the pump.



## Connecting Discharge Hose (sold separately)

1. If using a 3/4" hose, screw one end of the hose to the Check Valve until tight. To minimize leaks, use a hose that has a 3/4" threaded connector and rubber gasket.
2. If using a 1-1/4" discharge hose, connect a 3/4" adapter (sold separately) to the hose. Screw adapter to the Check Valve until tight.
3. Place the other end of hose as needed to direct the water discharge at least 3 feet away from the source. Slope the discharge hose downward, away from the source. Keep it as straight as possible and secure it in place. Avoid walkways and hazards, prevent tripping and hose from being walked on, crushed or the outlet blocked.



# Placing Pump

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1. With the power cord disconnected, place pump with Debris Strainer attached in a cleared surface where water will accumulate. Do not place pump on mud, sand or sandy surfaces, or in leaves.

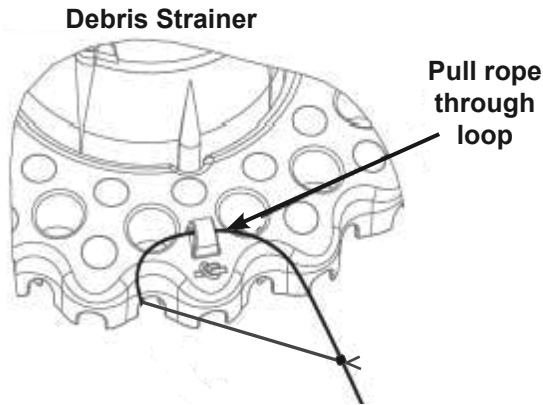
**DANGER! Do not use an extension cord with this pump. Keep plug dry and connected to a GFCI protected outlet secured away from water.**

2. Tie one end of the included 25' rope to the pump handle. Secure with a knot.
3. Lower pump with Debris Strainer attached in a low area where water accumulates. Do not drop the pump into a depth of more than 13' or the automatic switch may not function properly. Be sure pump sits fully upright.
4. Secure the rope outside the water for easy access.
  - a. Be careful not to pinch or damage the rope, cord or hose.
  - b. Place in area where they will not be stepped on or present a tripping hazard.
  - c. Be sure power cord reaches outlet without strain on the cord.
5. To remove Pump, disconnect power cord. Pull rope and lift the pump out.



### **Pull Across Surface Placement**

1. Tie one end of the included 25' rope to the loop on the Debris Strainer. Secure with a knot.



2. After positioning it, make sure pump sits fully upright.
3. Secure power cord and hose being careful not to pinch or damage them. Place in area where they will not be damaged or stepped on.

**DANGER!** Do not use an extension cord with this pump. Keep plug dry and connected to a GFCI protected outlet secured away from water.

4. Be sure power cord reaches outlet without any strain to cord.
5. Secure the end of the rope outside the water collection area for easy access.
6. Place pump in the lowest spot on surface where water accumulates. Be sure pump sits fully upright.
7. To position pump on a surface you cannot walk on, hold rope, walk around parameter and gently pull pump with rope. Be careful to guide hose and power cord as you position the pump.
8. Once the pump is in the desired location secure rope for easy access.
  - a. Secure power cord and hose being careful not to pinch or damage them.
  - b. Place in area where they will not be stepped on or present a tripping hazard.
  - c. Be sure power cord reaches outlet without strain on the cord.
9. To remove Pump, disconnect power cord. Pull rope and guide the Pump towards you for removal.



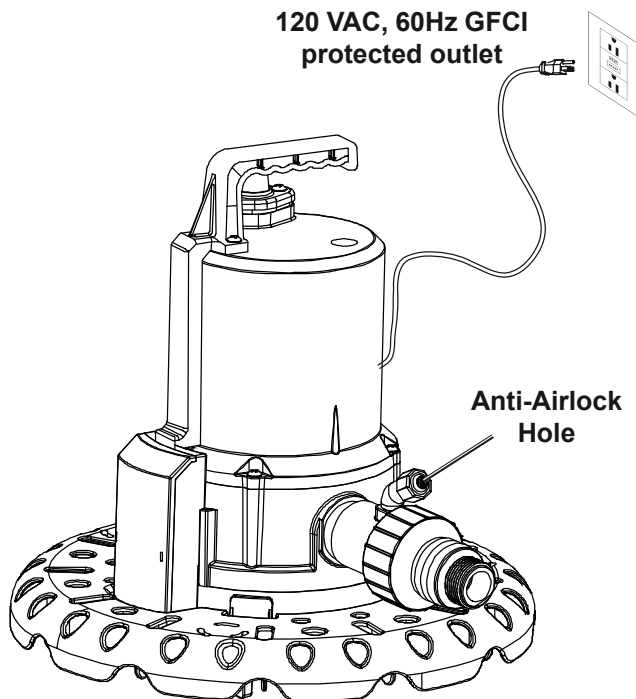


### **⚠️WARNING**

**TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:  
Unplug the Pump from its electrical outlet before setup or operation.**

1. After reading these instructions, consider the following points before starting the pump:
  - a. Verify the pump with Debris Strainer attached is sitting upright and flat on the ground. It should not be tilted or suspended by the handle.
  - b. Verify the discharge hose is properly connected and laid out straight. The outlet of the hose should be at least 3' away from the pump, secured and sloped downward, away from the source.
  - c. Verify the rope is tied to the pump and secured for easy access.
2. After the pump and hose are placed, connect the Power Cord into a 120 VAC, 60Hz GFCI protected outlet. Be sure power cord reaches outlet without any strain to cord.

**DANGER!** Do not use an extension cord with this pump. Keep plug dry and connected to a GFCI protected outlet secured away from water.



3. The pump will automatically start when the water level reaches 2" and will automatically stop at 3/4". The pump will not restart until the water depth reaches 2" or greater.

**Note:** Be sure the Check Valve's anti-airlock hole is pointing up and not obstructed.

**Note:** The pump will not start without detecting 2" of water. The impeller must have contact with water to automatically start the pump.

4. The pump will not run dry. Once the pump detects that water is no longer being removed it will shut down automatically.

**Note:** The pump must remain upright and level at all times for water detection to function properly. Do not allow the pump to operate on its side or inverted. The shaft seal depends on water for lubrication. Allowing the pump to remain in any other orientation than upright and level could cause the shaft seal to fail and damage the pump.

**WARNING!** Do not alter the pump to override the automatic water detector. The shaft seal depends on water for lubrication. Overriding this feature can cause the pump to run dry and damage the shaft seal causing the pump to fail.

### **Discharge Elevation**

5. When water is pumped out to an elevated area, where the discharge is higher than the pump, any water that has not drained out of the hose may flow back through the pump when the motor shuts off. This back-flow may raise the water level enough to re-start the pump. The included Check Valve is required to prevent back-flow into the pump. For proper operation, make sure the Check Valve is installed and orientated as instructed in Connecting Check Valve on page 6.

### **After Use**

6. When finished using the pump:
  - a. Disconnect power cord and wipe clean. Clean rope.
  - b. Remove Debris Strainer, clean it and Inlet Screen.
  - c. Remove and flush discharge hose. Allow hose to dry completely.
  - d. Clean pump's outside housing and the Switch Housing's sensor/probe. Allow to dry completely.
  - e. Store indoors out of reach of children.

## Maintenance

### **⚠️ WARNING**

#### TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Unplug the Pump from its electrical outlet before performing any inspection, maintenance, or cleaning procedure.

**TO AVOID SKIN BURNS:** Allow time for the pump to cool after periods of extended use.

**TO AVOID INJURY:** Do not use pump if any part of the switch housing or probe (inside switch housing) is cracked, broken or missing.

## Maintenance

1. If the pump is moved during operation, flush pump with clean water after every use.
2. **Quarterly**  
Perform at least once every 3 months under optimal conditions. For frequent use or dirty areas, more frequent maintenance is required.
  - a. Clean sludge and debris from surface where pump is placed.
  - b. Clean sludge/debris from Debris Strainer and Inlet Screen.
  - c. Flush discharge hose and make sure it is free from leaks.
  - d. Make sure Check Valve is functioning properly.
- e. Lift Pump from 2" or more of water to determine that pump turns on/off as intended.
 

**Note:** If the pump won't stop, unplug the pump. Remove the Debris Strainer and check inside the sensor body. Remove any trapped leaves, debris or dirt.
3. **When the temperature drops below freezing, remove the pump from service and store indoors to protect pump from ice damage.** The pump has a protection circuit to protect the motor from a locked impeller which can be caused by debris build up or a frozen impeller. When the pump is activated and the impeller is detected to be locked, the unit will automatically shut down to protect the motor from overheating. Once the pump is able to operate correctly, the pump will resume normal operation.

## Troubleshooting

Problem	Possible Causes	Possible Solutions
Pump runs, but delivers little to no water.	<ol style="list-style-type: none"> <li>1. Debris Strainer, Inlet Screen and/or Impeller clogged.</li> <li>2. Obstructed discharge hose.</li> <li>3. Discharge height exceeds capability.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove Debris Strainer. Clean out dirt and debris from Debris Strainer, inlet screen and impeller. Replace Debris Strainer.</li> <li>2. Check for kinks, reposition and straighten. Flush any clogs with clean water.</li> <li>3. Reduce discharge height.</li> </ol>
Pump won't start or run.	<ol style="list-style-type: none"> <li>1. Check power connections and circuits/fuses.</li> <li>2. Water level too low.</li> <li>3. Defective motor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Consult an electrician.</li> <li>2. Wait for water level to reach 2" or move Pump to a lower location.</li> <li>3. Have a qualified service technician repair or replace.</li> </ol>
Pump won't turn off	<ol style="list-style-type: none"> <li>1. Debris in switch</li> <li>2. Discharge height exceeds capability.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rinse switch with clean water.</li> <li>2. Reduce discharge height.</li> </ol>
Pump starts and stops too often.	<ol style="list-style-type: none"> <li>1. Back flow of water from hose.</li> <li>2. Pump not sitting level.</li> <li>3. Dirty switch.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace check valve. Move hose so output runs downward, away from pump.</li> <li>2. Reposition pump so it sits level on surface.</li> <li>3. Rinse switch with clean water.</li> </ol>



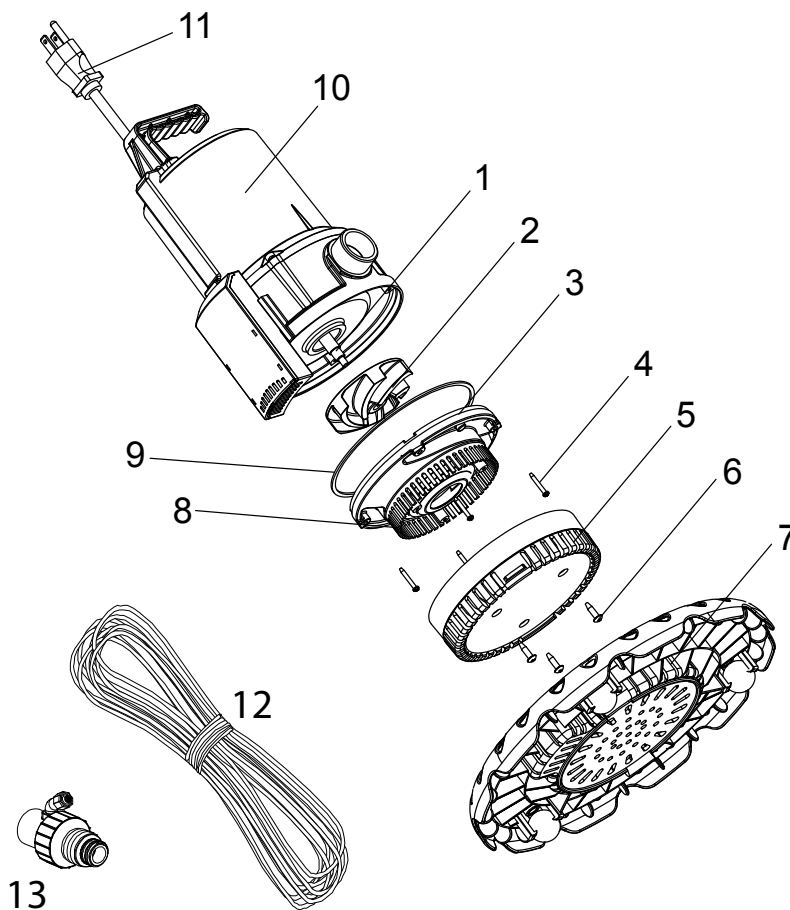
**Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.**

### 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.

Part	Description	Qty.
1	Shaft	1
2	Impeller	1
3	Diffuser	1
4	Screw	4
5	Base and Inlet Screen	1
6	Screw	3
7	Debris Strainer	1

Part	Description	Qty.
8	Volute	1
9	Gasket	1
10	Pump Housing	1
11	Power Cord	1
12	Rope	1
13	Check Valve	1



Record Product's Serial Number Here: \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

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

## Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



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