

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.

21e



SUBMERSIBLE SUMP-EFFLUENT PUMP



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

**58029
58030**

Visit our website at: <http://www.harborfreight.com>
Email our technical support at: 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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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 115VAC at 60Hz.

⚠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. This pump has been evaluated for use with water only.
4. The electrical connections must be protected from moisture.
5. If there is danger of flooding, the electrical connections must be taken to higher ground.
6. Circulation of caustic fluids, as well as the circulation of abrasive materials, must be avoided at all costs.
7. The pump must be protected from frost.
8. The pump must be protected from running dry.
9. Access by children should also be prevented with appropriate measures.
10.  **To prevent death from electric shock, pump must be connected only to a GFCI protected outlet.**
11. Do not use an extension cord with this item.
12. 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.
13. 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

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



Specifications

Model	58029	58030
Rated HP	3/4 HP	1/2 HP
Electrical Rating	115VAC / 60Hz	115VAC / 60Hz
Amperage	11.0 A	9.0 A
Power Cord Length	10 ft	10 ft
Maximum Flow @ 0'	5400 GPH	4400 GPH
Maximum Head Lift @ 0 GPH Flow	40 ft.	35 ft.
Discharge Port	1-1/2" NPT	1-1/2" NPT

Installation

The submersible motor pump must be installed in a stationary position with either:


- a. A fixed pipeline or
- b. A flexible hose pipe.

Please note!

1. Do not install the pump by suspending it unsupported from its delivery pipe or power cord. The pump must be suspended from the handle or be placed on the bottom of the basin. To ensure that the pump works properly, keep the bottom of the basin free from sludge and dirt of all kinds.
2. If the water level sinks too low, any sludge in the basin 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 120VAC, 60Hz GFCI protected socket.
2. Make sure that the socket is sufficiently secured and is in excellent condition.
3. When the plug is inserted into the socket, the pump will be on standby.

4.  **WARNING: To prevent death from electric shock, pump must be connected only to a GFCI protected outlet.**

WARNING! TO PREVENT SERIOUS INJURY:

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 to be used for:
 - Removing ground water from basements and crawlspaces.
 - Pumping grey water residential systems.
2. This pump should NOT be used for:
 - Continuous run, fountain/pond water features.
 - Removing water from swimming pools or spas.

Installation Instructions

1. Construct a basin that is at least 22" deep and at least 14" in diameter.

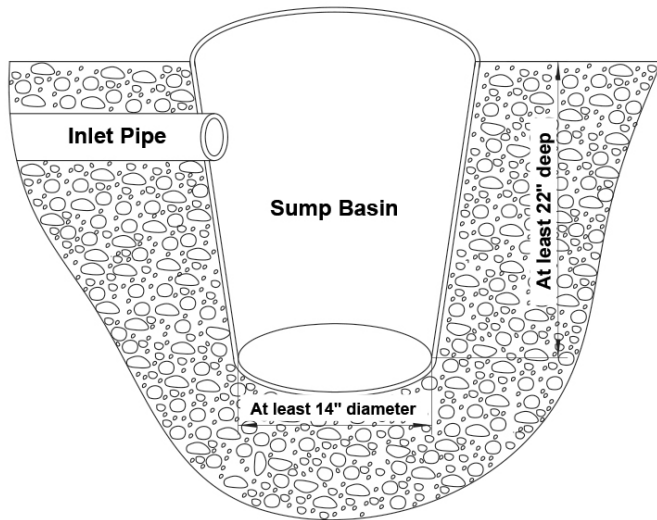


Figure A: Sewage Basin

2. Position Pump on solid surface so that the Float Switch is away from the inlet pipe and at least 1" away from all obstructions throughout its movement.
3. Fit a sewage cover with a vent pipe, a hole for the output pipe and a hole for the Power Cord. Thread the Power Cord through the hole, but do not plug it in yet. Set the sewage cover aside for now.
4. Attach a discharge pipe to the Pump Outlet. Drill a 1/8" diameter air bleed hole through the discharge pipe just above the lower Base to prevent Pump "airlock." A small spray of water out of this hole is normal while the Pump is running.

Note: Wrap all threaded connections with PTFE thread seal tape.

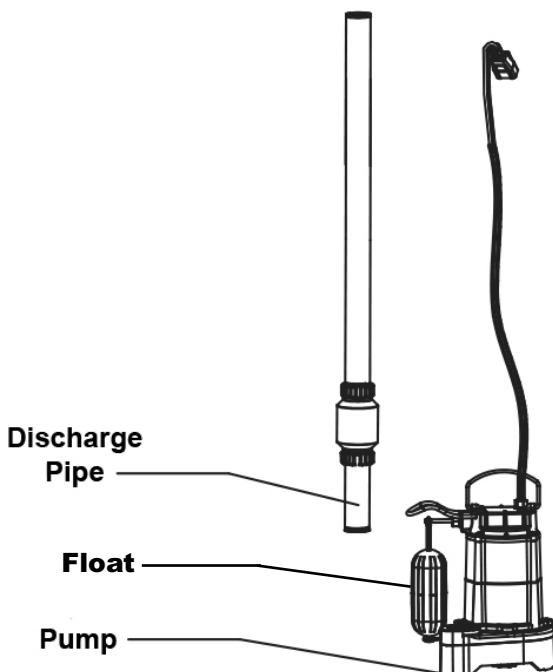


Figure B: Discharge Pipe and Pump

5. To prevent excessive cycling from backflow of water, install a check valve (not included) onto the discharge pipe. This prevents water from flowing back after the pump shuts off. Install according to manufacturer's instructions. Mount the check valve according to check valve label to avoid the valve flapper getting stuck.

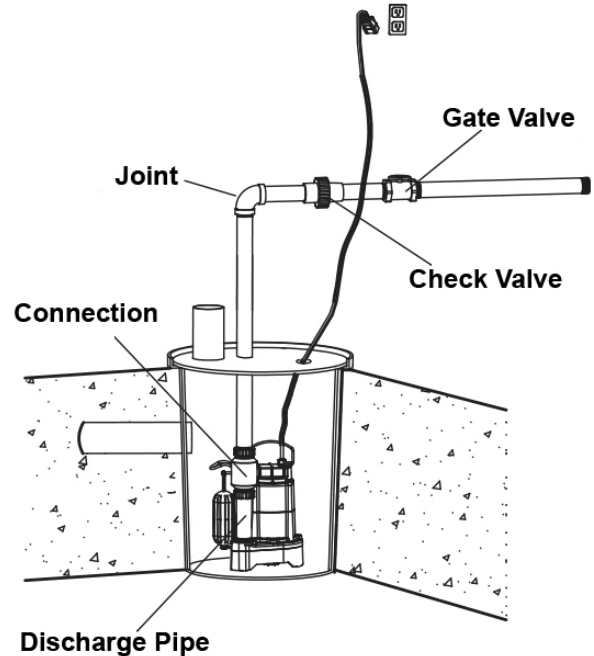


Figure C: Pump Setup

6. Connect additional discharge pipe as needed to direct the discharge to the main waste line for the sewer or septic tank. The discharge should be kept as short as possible with a minimum number of turns.
7. Make sure that Float is able to move freely.
8. Secure power supply cord to discharge pipe to prevent possible switch entanglement.

IMPORTANT: Do not exceed the Maximum Head Lift @ 0 GPH Flow of the Pump.

Operation

1. After reading these instructions, consider the following points before starting the pump:
 - a. Verify that the pump rests on the floor of the basin.
 - b. Verify that the discharge pipe is properly connected.
 - c. Verify that the electrical connection is 115VAC, 60Hz.
 - d. Verify that the electrical socket is GFCI protected and in good condition. Test GFCI protected outlet before use.
 - e. Verify that water and moisture cannot get near the power supply socket.
 - f. Verify that the pump is installed so as to prevent running dry.
2. Connect pump power supply cord to GFCI outlet.
3. Fill sump basin with water. Pump will automatically start when water level reaches certain level. Pump will automatically turn off if water falls below a certain level.
4. After filling with water, secure sewage cover and gasket to basin to prevent debris from falling into basin.

Maintenance

⚠ WARNING TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Unplug the Pump from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

If the pump is moved during operation, flush it out with clean water after every use.

Quarterly Maintenance

The below maintenance must be performed at least once every 3 months under optimal conditions. For frequent use, or dirty areas, more frequent maintenance is required. Soak in bleach solution for 2 hours after removing from service before handling. Wear ANSI-approved splash-resistant safety goggles, full face shield, and impermeable rubber work gloves during service.

1. Clean sludge and debris from the bottom of the basin.
2. Clean sludge/debris from inlet screen.
3. Make sure discharge pipe is free from leaks.
4. Make sure check valve is functioning properly.
5. Manually operate flow switch to determine that pump turns on/off as intended.

Troubleshooting

Problem	Possible Causes	Possible Solutions
Pump runs, but will not deliver any water.	<ol style="list-style-type: none"> 1. Impeller clogged. 2. Low line voltage. 3. Check valve (not included) stuck or installed backwards. 	<ol style="list-style-type: none"> 1. Clean out dirt and debris from impeller. 2. Consult an electrician. 3. Remove and examine check valve.
Pump won't start or run.	<ol style="list-style-type: none"> 1. Check power connections and circuits/fuses. 2. Impeller clogged. 3. Defective motor. 	<ol style="list-style-type: none"> 1. Consult an electrician. 2. Clean out dirt and debris from impeller. 3. Have a qualified service technician repair or replace.
Excessive noise or vibration.	<ol style="list-style-type: none"> 1. Debris in impeller. 2. Discharge pipe restricted. 	<ol style="list-style-type: none"> 1. Clean impeller. 2. Clean Pump and discharge pipe.
Pump starts and stops too frequently.	<ol style="list-style-type: none"> 1. Water temperature too high. 2. Check valve stuck or installed backwards. 3. Back flow of water from discharge hose. 	<ol style="list-style-type: none"> 1. Do not exceed 95° F (35°C) water temperature. 2. Remove and examine check valve. 3. Install or inspect check valve.



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.

Parts List

Part	Description	Qty
1	Gasket	1
2	Hex Socket Head Plug, 1/4 NPT	1
3	Connecting Rod	1
4	Float	1
5	Straight Pin, 2.5X10	1
6	Circlip for Shaft X5	1
7	Gland Nut	1
8	Gasket	1
9	Seal Cartridge	2
10	Anchor Block	2
11	Connecting Rod	1
12	Protector Rack	1
13	Handle	1
14	Connector Cable Assembly	1
15	Oil Fill Plug	1
16	O-Ring	1
17	Cross Recessed Pan Head Screw #10	4
18	Lock Washer #10	12
19	Flat Washer 5	15
20	Nameplate	1
21	Top Cover	1
22	O-Ring	1
23	Microswitch QKS5-03	1
24	X6.3 Bend Spring	2
25	6.3 Protecting Brush	2
26	Cross Recessed Pan Head Screw #10	2
27	Capacitor	1
28	Cross Recessed Pan Head Screw #10	6
29	Capacitor Clamp	1

Part	Description	Qty
30	Cross Recessed Pan Head Screw #10	5
31	Lock Washer 5	1
32	OT(2.5-5) Cold-Pressed Terminal	1
33	External Teeth Lock Washer 5	1
34	Terminal	1
35	O-Ring	1
36	Female Pin Terminal AMP P/N 42101-2	8
37	Insulated Sleeve	4
38	Heat-Shrinkable Tube	9
39	Pump Housing	1
40	Transformer Oil (1100 ml)	1
41	Cable Clamp	2
42	Plate	1
43	Hex Bolt 10-24UNC*8	3
44	Pump Housing	1
45	Winding Core (56#B60)	1
46	Wave Spring D30	1
47	Single Row Radial Ball Bearing 6200	1
48	Rotor (56#B60)	1
49	Single Row Radial Ball Bearing 6301	1
50	O-Ring	1
51	Lower Bearing Seat	1
52	Mechanical Seal	1
53	Impeller	1
54	Circlip for Shaft X8	1
55	Pump Body	1
56	Cross Recessed Pan Head Screw #10	6
57	Inlet Baffle	1

Record Product's Serial Number Here: _____

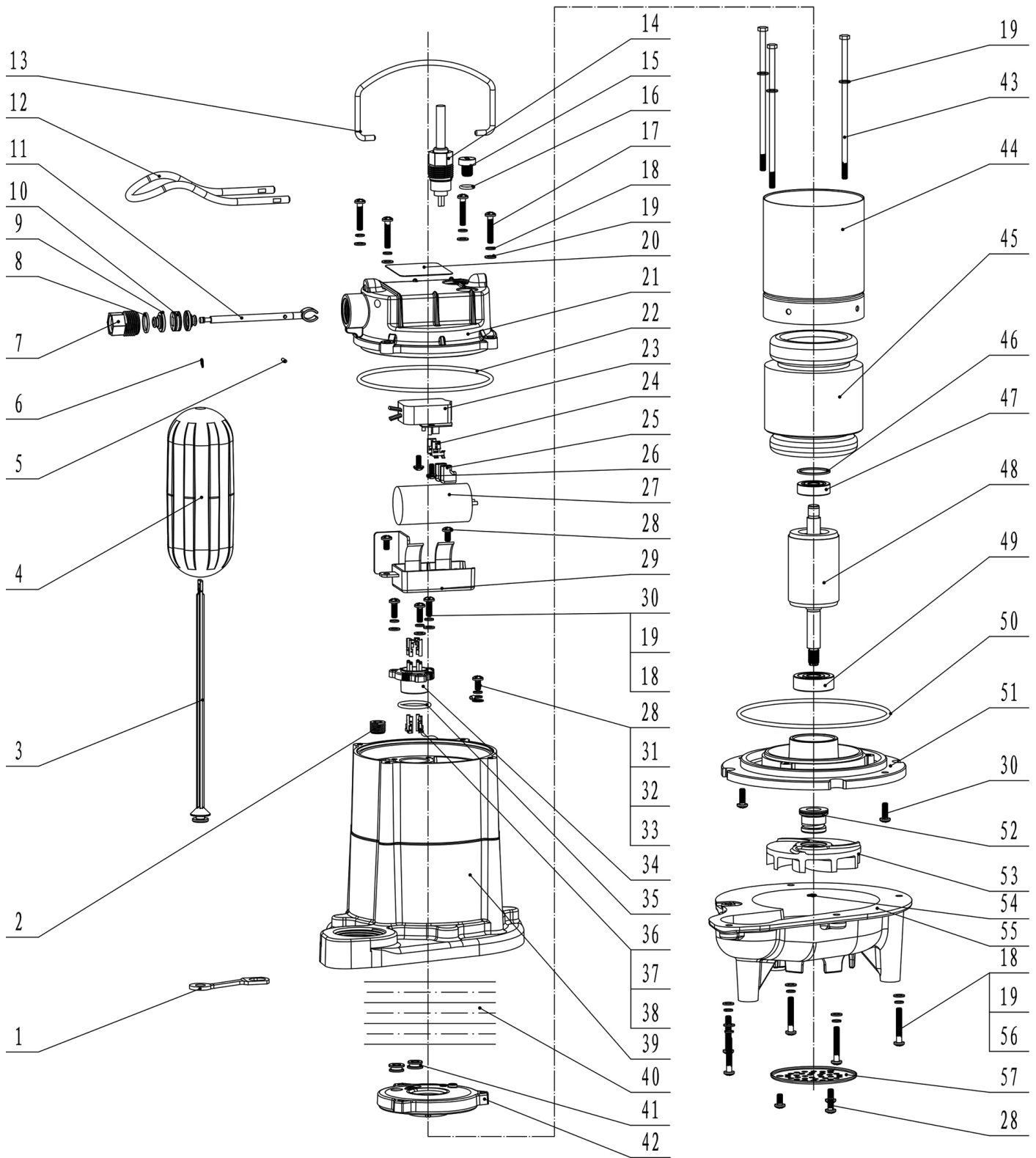
Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Parts are not interchangeable between models. Specify the model number for which you are ordering parts. Specify UPC number when ordering:

3/4 HP (58029): 193175430977

1/2 HP (58030): 193175430984

Assembly Diagram



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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