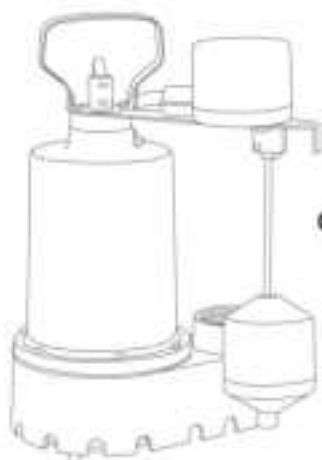




INSTALLATION & OPERATION MANUAL SUBMERSIBLE SUMP PUMPS

Models:
PF92331, PF92341
PF92352, PF92352-25
PF92501, PF92511



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.

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

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

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

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 ELECTRICAL SHOCK.** Disconnect and lockout power supply before removing old pump or installing or servicing this pump.

⚠ DANGER **RISK OF ELECTRICAL 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.

⚠ CAUTION 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 ELECTRICAL SHOCK.** This pump has not been investigated for use in swimming pool or marine areas.

⚠ WARNING **RISK OF ELECTRICAL SHOCK.** **DO NOT** use the power cord to remove or lower the pump into the basin. The cord may pull apart, exposing bare wires which could cause a fire or electrical shock. Use the handle supplied with the pump for hoisting and removing the pump from the basin.

⚠ 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 Don't expose pump to freezing temperatures. Discharge lines exposed to freezing temperatures should be sloped with a downward slope to prevent freezing.

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

⚠ WARNING According to the state of California (Prop. 65), this product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

⚠ WARNING DO NOT UNDER ANY CIRCUMSTANCES REMOVE THE GROUND PIN. 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 Electrical Code and all applicable local codes and ordinances.

⚠ WARNING All wiring must be performed by a qualified electrician.

⚠ WARNING Keep hands clear of suction & discharge openings. To prevent injury, never insert fingers into ports while it is plugged in.

⚠ WARNING Pump basin must be vented according to local plumbing codes.

⚠ CAUTION Do not handle this pump with wet hands or while standing on wet or damp surfaces or in water.

⚠ WARNING If a flexible discharge hose is used, make sure the pump is secured in the basin to prevent movement. Failure to secure the pump could result in flooding from sewer malfunction.

⚠ CAUTION This pump motor is equipped with an automatic resetting thermal protector and may restart unexpectedly.

Description

This Sun pump is designed to remove ground water from residential sump pits. The motor is oil-cooled and hermetically sealed. A float switch is provided for automatic operation and is equipped with a 10', 3 strand braided type power cord.

Specifications

Model	3-20351	3-20341	3-20350	3-20350-05	3-20501	3-20501-1
HP	1/2	3/4	1 1/2	1 1/2	1 1/2	1 1/2
Voltage	120 volt AC	120 volt AC	120 volt AC	120 volt AC	120 volt AC	120 volt AC
Amperage	4 1/2 Amps	4 1/2 Amps	7 5/8	7 5/8	6 1/2	6 1/2
Warranty	60 Days	60 Days	60 Days	60 Days	60 Days	60 Days
Height	4'	4'	4'	4'	4'	4'
Swampage Rate	1-1 1/2" GPM	1-1 1/2" GPM	1-1 1/2" GPM	1-1 1/2" GPM	1-1 1/2" GPM	1-1 1/2" GPM
Max. Sump Depth	20' Spheres	20' Spheres	10' Spheres	10' Spheres	10' Spheres	10' Spheres
Input Amps (max range)	22.1 - 120%	22.1 - 120%	22.1 - 120%	22.1 - 120%	22.1 - 120%	22.1 - 120%
Cord Length	10'	10'	10'	5'	10'	10'
Switch Type	ethernet	Variable	Variable	Variable	ethernet	Variable
Switch on Delay (to any SW)	10'	0'	0-5'	0-5'	10'	0-5'
Switch off Delay (to any SW)	0'	0'	0'	0'	0'	0'
Pump Housing Construction	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Pump Case Construction	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Impeller	Stainless Steel	Stainless Steel	reinforced polypropylene	reinforced polypropylene	reinforced polypropylene	reinforced polypropylene
Motor Shaft	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Shaft Seal	Carthart/ Carquest/ Stainless Steel	Carthart/ Carquest/ Stainless Steel	Carthart/ Carquest/ Stainless Steel	Carthart/ Carquest/ Stainless Steel	Carthart/ Carquest/ Stainless Steel	Carthart/ Carquest/ Stainless Steel
Assemblies	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Shaft Material	1" C	1" C	1" C	1" C	1" C	1" C
Max. Wt.	100	100	100	100	100	100

Installation

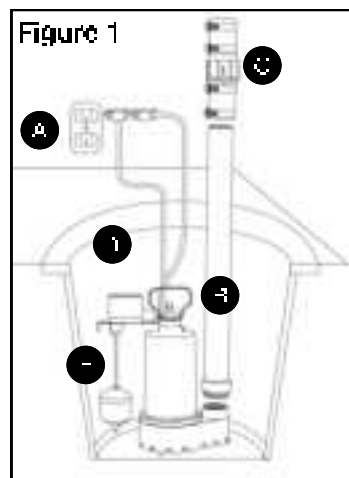
Removing old pump (if necessary)

1. Remove the old pump from the basin. If you need to cut the old discharge pipe to remove the pump, cut it as close to floor level as possible. If a check valve is attached to the pump, be prepared for water to leak from the pipe. Allow water to drain into the sump basin.
2. Inspect the basin for accumulated mud, sand, silt or small stones. Clean out the basin if necessary.

Install new pump

1. Connect the discharge pipe to the pump's discharge. Do not use pipe joint compound on cast pipe or cast a pump flange as this can degrade the plastic. Use Teflon® tape if necessary.
2. Install a full flow, swing type check valve (sold separately) either directly in to the pump's discharge or on the discharge pipe. Make sure the check valve is positioned in the correct direction of flow.
3. Place the pump on a solid, level surface in the basin. Use bricks or blocks to raise the pump off the bottom surface. Do not place the pump directly in mud, sand, silt or on rocky surfaces as these materials can clog or cause damage the pump. Do not lower the pump into the basin by the power cord or discharge pipe, use the attached handle.
4. Position the pump in the basin making sure that the float switch will operate freely without coming in contact with the sides of the basin.
5. Once the pump is positioned in the basin, mark and cut your existing discharge pipe to fit the height of the pump or continue installation of discharge pipe to the outside of the building.

Figure 1



A. Grounded Outlet: A GFCI outlet is strongly recommended.

3. Discharge Pipe

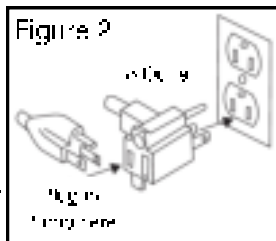
C. Full-Flow swing type check valve

D. Sump Basin

E. Position pump so the float switch operates freely without touching the sides of the basin.

Operation

1. Plug the piggy-back plug of the float switch into a 120 volt grounded outlet. The use of a GFCI is strongly recommended. Plug the pump plug into the back of the float switch plug. See Figure 2.
2. Test your installation by filling the basin with water. Observe the float switch through at least one complete cycle to ensure it operates freely and does not contact the sides of the basin. If necessary, adjust the float switch or reposition the pump to ensure proper operation.
3. This pump is equipped with an anti-suck 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-suck hole should be cleared periodically to prevent the pump from becoming airlocked.
4. Do not let the pump run dry. The pump depends on water for cooling and lubrication. Operating the pump without water may cause the motor to overheat or cause damage to internal parts. It may also shorten the life of your pump.
5. Your pump motor is thermally protected. It is not recommended for pumping liquids over 120° F (49° C). The thermal overload protector will automatically shut down the pump in an overload situation. The pump will reset itself once the pump cools down. This overload is designed as a safety device and will fail after repeated use. Normal operation is for fluids between 32° F & 120° F (0° C - 49° C).



Maintenance

⚠ DANGER Risk of electric shock. Always disconnect the power supply before attempting to install, service or perform maintenance on the pump.

⚠ WARNING All repairs must be made by an authorized service center.

⚠ CAUTION This submersible pump contains oil which may become pressurized and hot under normal operating conditions - allow the pump to cool for 2-3 hours before servicing.

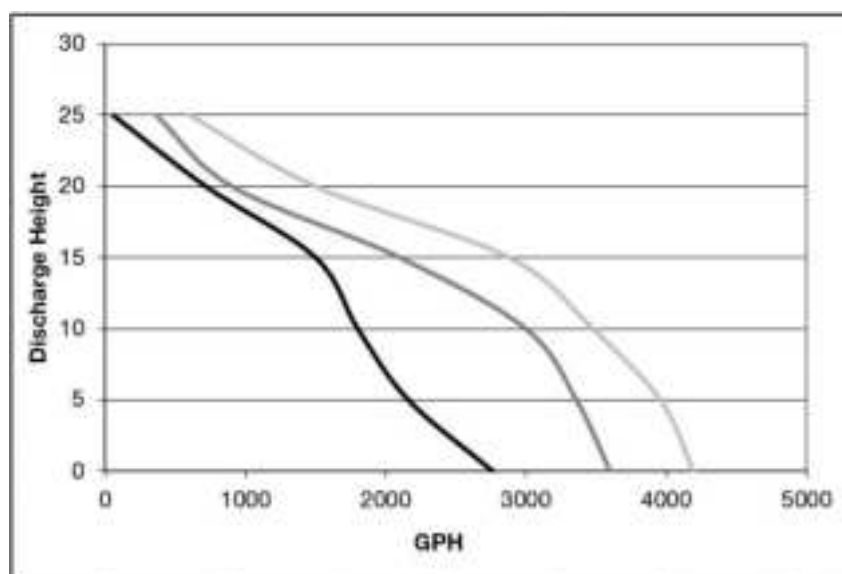
1. The pump motor is hermetically sealed in the housing and does not require any service. Disassembly of the motor housing or modification of the power cord voids the warranty.
2. Periodically check the pump basin for accumulation of mud, silt, sand and foreign objects. Clean the basin as needed to prevent damage or clogging of the pump.
3. Periodically check the removable intake screen for obstructions. Clean if necessary.
4. Periodically inspect and clean the anti-suck hole.
5. Inspect the float switch for any accumulated debris that may inhibit it from operating properly. Clean if necessary.
6. Inspect the impeller for signs of wear and obstructions.
7. Inspect the power cord for signs of damage or wear. Do not operate the pump if the cord is damaged or worn.
8. In applications where the pump may not operate for extended periods of time, it is recommended to cycle the pump at least once per month to ensure the pumping system is working properly when needed.

Troubleshooting

Problem	Possible Causes	How to Correct
The pump does not start or run	Pump is not plugged in, switch or breaker is turned off	Plug pump in or turn on switch/breaker
	Check for blown fuses or tripped circuit breakers or tripped GFCI outlets	Replace fuse, reset breaker, reset GFCI outlet
	Float switch is defective	Check and replace if necessary
	Motor thermal protector tripped	Allow pump to cool. Pump will reset automatically
	Float switch is stuck or obstructed	Remove obstruction or position pump so the float switch will operate freely
The pump starts and stops too often	Backflow of water from discharge hose/pipe	Install or replace check valve
	Float switch is defective	Replace float switch
The pump runs but moves little or no water	Clogged discharge hose/pipe	Remove clog
	Frozen discharge hose/pipe	Allow hose/pipe to thaw
	Pump is air locked	Check airlock hole for clogs and clean if necessary
	Low line voltage	Check wire size and increase if necessary
	Check valve is stuck in the closed position	Inspect, repair or replace if necessary
	Check valve is installed backwards	Make sure check valve is installed in the correct direction of flow
	Clogged intake screen	Clean or replace screen
	Worn, damaged or clogged pump parts	Inspect for wear, damage or clog and clean or replace part if necessary
	Discharge head exceeds pump capacity	See performance chart for pump limitations
Pump does not shut off	Float switch is obstructed or stuck	Remove obstruction
	Defective Float Switch	Replace float switch

Performances

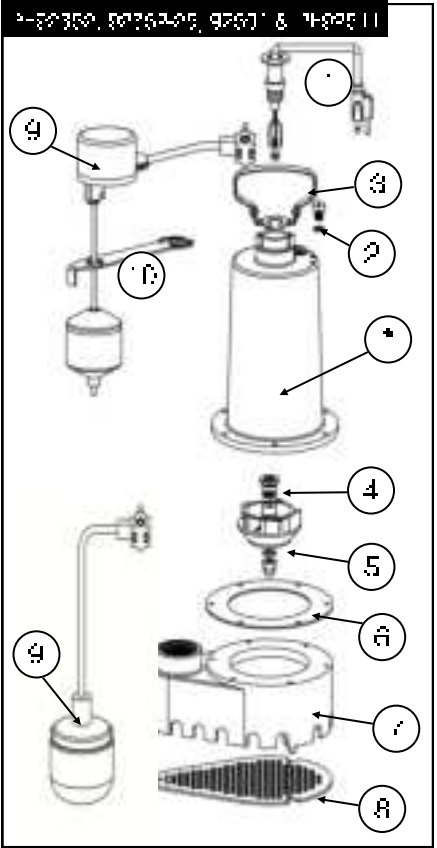
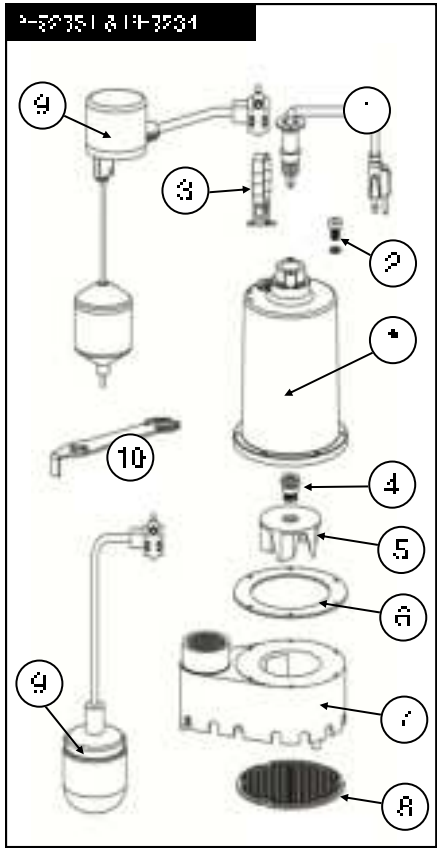
High and/or piping restriction will reduce the pump output performance. It is recommended to use the same size or larger pipe as the pump's discharge for optimum performance.



—PF92931, PF92941 —PF92952, PF92952-25 —PF92501, F32511

Model	Discharge Height	0'	5'	10'	15'	20'	25'
7FE2531 7FE2541	Gallons Per Minute	46	36	30	25	12	1
7FE2552 7FE2552-25	Gallons Per Minute	60	56	50	35	15	6
7FE2501 7FE2511	Gallons Per Minute	70	66	58	48	25	10

Replacement Parts - To order replacement parts call 888-6-PROFLO



Part	Description	9-82351 14-3534	9-82350	9-82350- 25	9-82501 14-3534
1	12 HP PowerGold	92005	92005	-	92005
1	25 HP PowerGold	-	-	92005	-
2	Oil-Fill Plug with O-ring	9205F	9205F	9205F	9205F
3	Handle	92057	92057	92057	92057
4	Impeller	92095	92095	92095	92095
5	Shaft Seal	92095	92095	92095	92095
6	Gasket	92051	92051	92051	92051
7	Base/Valve	92071	92071	92071	92071
8	Wax Screen	92071	92071	92071	92071
9	Vertical Floater Switch Note: Switch includes the switch, float rod, float ball and gasket.	97015	97015	97015	97015
		97015			97015
10	Vertical Floater Switch Bracket	VA	92005	92005	VA
		92005			92005

10. Motor only, no external pump

Moles

[illegible]

