

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This pump is warranted free from material and/or manufacturing defects for three years from date of purchase (five years on select cast iron pumps). As the sole and exclusive remedy for a breach of this limited warranty, if the product is found to be defective, it will be replaced with an equivalent product if it is returned to the place of purchase with proof of purchase. Any disassembly, modification, or abuse of this product voids this limited warranty. This product is not designed for pumping flammable or corrosive fluids, and use of this product to pump such materials also voids this limited warranty.

**ALL OTHER EXPRESS OR IMPLIED WARRANTIES,
INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS
FOR A PARTICULAR PURPOSE ARE DISCLAIMED**

IMPORTANT NOTICE: Some commercial and residential insurance policies extend coverage for damages incurred by product failure. In most cases, you will need to have possession of the product to support your claim. In the case where you need to retain possession of the product to support a damage claim you submit to your insurance company, the pump will be exchanged with an equivalent or the original price will be refunded once the claim is settled with the insurer.



OWNER'S MANUAL

INSTALLATION AND OPERATION INSTRUCTIONS FOR: SUBMERSIBLE SEWAGE PUMPS

Models:
PF93501, PF93507, PF93511, PF93101



Carefully read and understand all of the Warnings and installation instructions in this manual. Failure to follow these instructions could lead to serious bodily injury and/or property damage. Retain these instructions for future reference.

This pump has been manufactured with your needs in mind. Properly installed in the right application, your new PROFLO Pump will give you years of carefree performance.

DANGER ⚠ Water and electricity can be dangerous if certain precautions are not heeded to. This pump is designed to operate perfectly safe in a water environment; however, improper use and installation can result in personal harm from electrical shock. Please pay attention to the following warnings.

WARNING ⚠ Never touch any electrical device, including this pump, when it is touching water, in water, or even in a moist environment. Always unplug (disconnect the electricity) when working on or installing the unit.

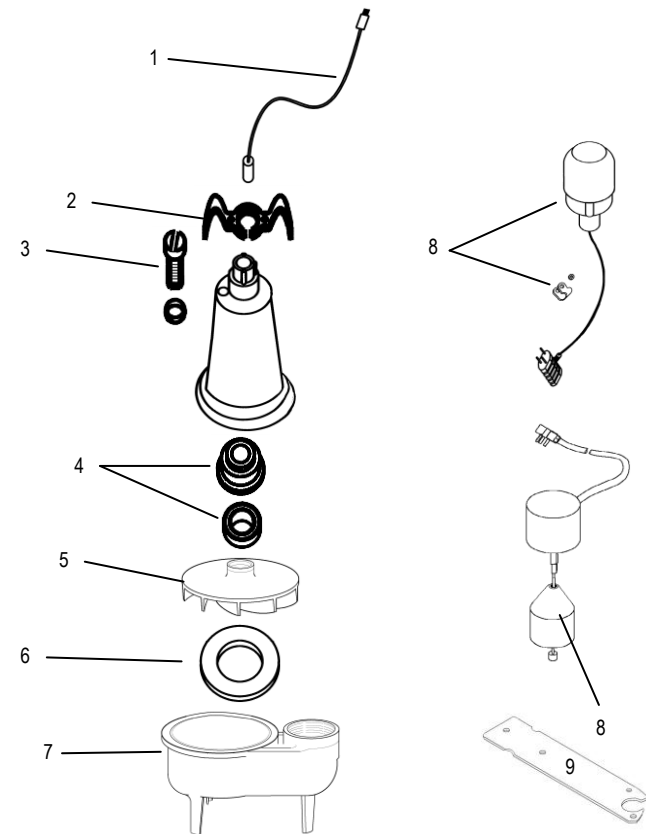
WARNING ⚠ **RISK OF ELECTRICAL SHOCK.** This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electrical shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

WARNING ⚠ Do not use the power cord or discharge hose/pipe to carry or handle the pump. Doing so may cause damage to the power cord or discharge hose/pipe. Use the carrying handle supplied with the pump.

WARNING ⚠ Always use a grounded outlet. A three-prong mating type receptacle is needed for safe use. This should be in accordance with the National Electric Code and any additional codes or laws required by your local government.

NOTICE ⚠ It is strongly recommended to use a ground fault interrupt (GFCI) device on any electrical appliance, including this pump, when used in a wet or moist environment. This is required by many local codes and enforcement agencies.

REPLACEMENT PARTS



Ref. #	Description	Part # for Models	
		PF93501 PF93507	PF93511
1	Power Cord*		
2	Handle	PF99051	PF99051
3	Oil Fill Plug with O-ring	PF99056	PF99056
4	Shaft Seal	PF99057	PF99057
5	Impeller	PF99090	PF99090
6	Gasket	PF99089	PF99089
7	Base	PF99077	PF99077
8	Float Switch	PF92000	PF92010
9	Vertical Float Switch Bracket	n/a	PF99105

* Replacement power cords not available for cast iron pumps

** If motor fails, replace entire pump

NOTICE ⚠ Height and/or piping restriction will reduce the pump output performance. Whenever possible use the same or larger size pipe than the pump discharge for optimum performance. Reducing the pipe size will not harm your pump; it will just slow the flow.

PERFORMANCES

Discharge Height above pumping level						
	0'	5'	10'	15'	20'	25'
GPM	80	68	60	44	25	2
GPH	4800	4080	3600	2640	1500	300

SPECIFICATIONS

Power supply requirements..... 120V, 60 Hz
 Motor..... Continuous Duty***, Capacitor Start
 Amps..... 7.6
 Horsepower..... ½ HP
 Liquid Temperature Range..... 32° F - 120° F
 Circuit Requirements..... 15 amp
 Discharge Size..... 2"
 Solids Handling..... 2"

***For continuous duty, the pump must be submerged to prevent overheating.

DANGER ⚠ Do not use this unit to pump flammable or corrosive liquids. You could injure yourself and the pump will fail. Pumping these types of liquids voids the warranty. Make sure you purchase a pump designed for your specific needs.

WARNING ⚠

Your pump has thermal over-load protection built in. It is not recommended for pumping liquids over 120° F. The thermal overload protector will automatically shut down the pump in an overheat situation. It will then reset itself once the pump cools down and the pump will work again. The overload protector is designed as a safety device and it will fail after repeated use. Normal operation is for fluids between 40° F & 120° F. **DO NOT RUN THE PUMP 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 parts of the pump. It may also shorten the life of your pump.

NOTICE ⚠

EXTENSION CORDS

For best performance, it is recommended to connect the power cord directly to the grounded GFCI outlet. If the use of an extension cord is necessary, always use a grounded waterproof type cord. Never use longer than a 25-ft. cord that is lighter than 14/3 gauge.

DANGER ⚠ Keep all electrical connections away from wet and moist environments. Wet connections can cause electrical shock resulting in serious or fatal injury.

USE AND INSTALLATION

Your PROFLO Pump is designed and built to give you reliable performance and long life. It will pump automatically for years when properly installed in the right environment.

WARNING ⚠ **ALWAYS DISCONNECT THE POWER SOURCE BEFORE ATTEMPTING TO INSTALL, SERVICE OR PERFORM MAINTENANCE ON THE PUMP. FAILURE TO DO SO MAY RESULT IN FATAL ELECTRICAL SHOCK.**

REMOVING OLD PUMP. (If necessary)

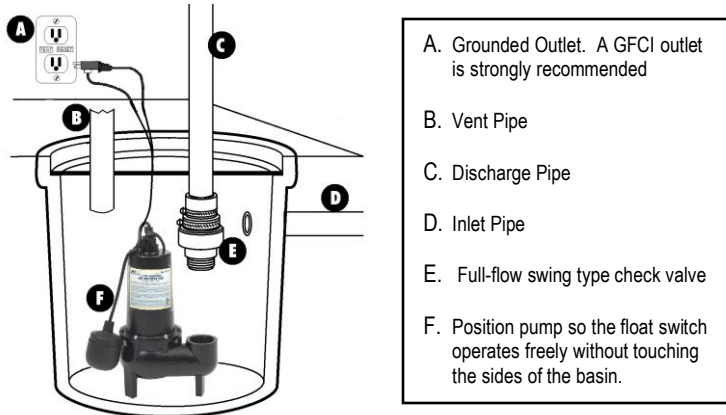
1. Make sure power supply is disconnected.
2. After the power is off, remove the old pump. There are many different possible types of installations.
3. It is best to remove all old piping and start over with new piping.

Be sure to have a grounded 120V AC outlet mounted within 6 ft. of your basin. Again, it is highly recommended that a ground fault interrupter outlet (GFCI) be installed in the receptacle box.

NOTICE ⚠️ A qualified electrician must perform all wiring.

INSTALLATION (New Pump)

1. Set your new pump in the bottom of the basin off to one side. The pump should be placed on a solid foundation.
2. Make sure the float switch will move freely from the bottom to top without coming in contact with the side of the basin. A minimum of 1" clearance is recommended. Contact with the side of the basin may cause the switch not to operate properly and malfunction. See figure below.



3. Install a full flow, swing type check valve (not included) as close to the discharge outlet on the pump as possible. A new check valve will greatly increase the life of your pump, and should be the same size as the pump discharge, in this case 2".
4. Connect the pump and check valve together using schedule 40 (recommended) DWV pipe and fittings.
5. Test your installation after you have completed setting up the pump and connected all piping. First, plug the piggyback plug from the float switch in to the grounded outlet. Next, plug the power cord from the pump into the piggyback plug on the float switch. The pump should not run at this point. If the pump runs, the switch is stuck in the upright position or the pump is plugged directly into the outlet and not through the piggyback switch plug. Fill the basin with water using buckets or a hose. When the switch floats to the upright position, the pump will turn on. The switch will turn off the pump when it reaches the down position. You may adjust the switch to meet your particular needs. Remember the switch must move freely without touching the sides of the sump basin.

WARNING ⚠️

Besides the fact that it smells terrible, the fumes developed by sewage and effluent can be very dangerous to your health, even fatal.

WARNING ⚠️

Sewage and effluent can develop dangerous and harmful fumes. For safe and secure operation in this environment it is required to use schedule 40 pipe or heavier. This is required by the UPC (Universal Plumbing Code) and is for your safety.

WARNING ⚠️

In a sewage/effluent installation use only an approved tank that is totally sealed and approved for that use by the manufacturer. The UPC (Universal Plumbing Code) requires it. Your PROFLO Pump will provide you with safe and reliable service when installed in the correct environment. **IF YOU ARE UNSURE**, contact your local code authority, or supplier.

TROUBLESHOOTING		
PROBLEM	POSSIBLE CAUSES	HOW TO CORRECT
If the pump does not start or run	▪ Pump is not plugged in, switch or breaker is 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
	▪ Float switch is stuck or obstructed	▪ Remove obstruction or position pump so it will not become stuck
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
If 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	▪ Remove
	▪ 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 valve is installed in the correct direction of flow
Pump does not shut off	▪ Worn, damaged or clogged pump parts	▪ Inspect for wear, damage or clog and clean or replace if necessary
	▪ Discharge head exceeds pump capacity	▪ If pumping height is over 25', the pump will not move water. See performance chart
	▪ Float switch is obstructed or stuck	▪ Remove obstruction
	▪ Defective Float Switch	▪ Replace switch