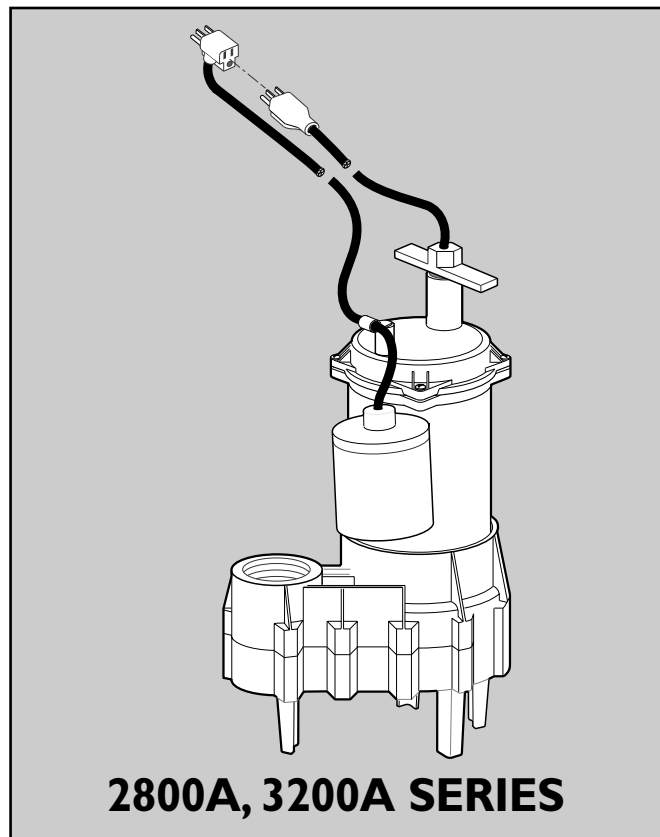




OWNER'S MANUAL  
**Submersible Solids  
Handling Pumps**

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**Water**  
is Our  
**Business®**



**Installation/Operation/Parts**

*For further operating, installation,  
or maintenance assistance:*

**Call 1-800-365-6832**

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## READ AND FOLLOW SAFETY INSTRUCTIONS!

**⚠ This is the safety alert symbol.** When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury:

**⚠ DANGER** warns about hazards that **will** cause serious personal injury, death or major property damage if ignored.

**⚠ WARNING** warns about hazards that **can** cause serious personal injury, death or major property damage if ignored.

**⚠ CAUTION** warns about hazards that **will** or **can** cause minor personal injury or property damage if ignored.

The label **NOTICE** indicates special instructions which are important but not related to hazards.

**Carefully read and follow all safety instructions in this manual and on pump.**

Keep safety labels in good condition. Replace missing or damaged safety labels.

1. Read this manual carefully. Failure to follow these Instructions could cause serious bodily injury and/or property damage.
2. Check your local codes before installing. You must comply with their rules.

3. Vent sewage or septic tank according to local codes.
4. Do not install pump in any location classified as hazardous by National Electrical Code, ANSI/NFPA 70-1990.

**⚠ WARNING** **Hazardous voltage, Can shock, burn or cause death.** During operation, the pump is in water. To avoid fatal shocks, proceed as follows if pump needs servicing:

**⚠ WARNING** **Risk of electrical shock. Can burn or kill. Do not lift pump by power cord. See “Cord Lift Warning” on Page 5.**

- 5A. Disconnect power to outlet box before unplugging pump.
  - 5B. Take extreme care when changing fuses. Do not stand in water or put your finger in fuse socket.
  - 5C. Do not modify cord and plug. When using cord and plug, plug into a grounded outlet only. When wiring to a system control, connect pump ground lead to system ground.
6. Do not run pump dry. Dry running can overheat pump, (causing burns to anyone handling it) and will void warranty.
  7. Pump normally runs hot. To avoid burns when servicing pump, allow it to cool for 20 minutes after shut-down before handling it.
  8. In normal service, motor should not need oiling. Motor has been filled at the factory with a special oil.

### ATTACH ORIGINAL RECEIPT HERE FOR WARRANTY CONSIDERATION.

## Flotec Limited Warranty

FLOTEC warrants to the original consumer purchaser (“Purchaser”) of its products that they are free from defects in material or workmanship.

If within twelve (12) months from the date of the original consumer purchase any such product shall prove to be defective, it shall be repaired or replaced at FLOTEC’s option, subject to the terms and conditions set forth below. Your original receipt of purchase is required to determine warranty eligibility.

#### Exceptions to the Twelve (12) Month Warranty

##### Ninety (90) Day Warranty:

If within ninety (90) days from original consumer purchase any Drill Pump, Pitcher Pump, or In-Line Water Filter Cartridge shall prove to be defective, it shall be replaced, subject to the terms set forth below.

##### Two (2) Year Warranty:

If within two (2) years from original consumer purchase any 1/3 HP Submersible Sump Pump or Model FP2800DCC shall prove to be defective, it shall be repaired or replaced at FLOTEC’s option, subject to the terms and conditions set forth below.

##### Three (3) Year Warranty:

If within three (3) years from original consumer purchase any 4” Submersible Well Pump, or 1/2 HP Submersible Sump Pump, shall prove to be defective, it shall be repaired or replaced at FLOTEC’s option, subject to the terms and conditions set forth below.

##### Five (5) Year Warranty:

If within five (5) years from original consumer purchase any Pre-Charge water system tank shall prove to be defective, it shall be repaired or replaced at FLOTEC’s option, subject to the terms and conditions set forth below.

#### General Terms and Conditions

Purchaser must pay all labor and shipping charges necessary to replace product covered by this warranty. This warranty shall not apply to acts of God, nor shall it apply to products which, in the sole judgement of FLOTEC, have been subject to negligence, abuse, accident, misapplication, tampering, alteration; nor due to improper installation, operation, maintenance or storage; nor to other than normal application, use or service, including but not limited to, operational failures caused by corrosion, rust or other foreign materials in the system, or operation at pressures in excess of recommended maximums.

Requests for service under this warranty shall be made by returning the defective product to the Retail outlet or to FLOTEC as soon as possible after the discovery of any alleged defect. FLOTEC will subsequently take corrective action as promptly as reasonably possible. No requests for service under this warranty will be accepted if received more than 30 days after the term of the warranty.

This warranty sets forth FLOTEC’s sole obligation and purchaser’s exclusive remedy for defective products.

FLOTEC SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THE APPLICABLE EXPRESS WARRANTIES PROVIDED HEREIN.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific

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**PERFORMANCE**

	GPH (LITERS) AT DISCHARGE FT. OF HEAD				
	5 (1.5m)	10 (3m)	15 (4.6m)	20 (6.1m)	25 (7.6m)
<b>FPSE2800A</b>	3180(12,038)	2700(10,221)	2100(7,949)	1500(5,678)	750(2,839)
<b>FPSE3200A</b>	3900(14,763)	2550(9,653)	960(3,634)	0	–

**INSTALLATION**

**NOTICE:** Install pump on a hard, level surface (cement, asphalt, etc.). Never place pump directly on earth, clay or gravel surfaces.

**Piping – Effluent Applications (3/4" or Less Solids)**

Piping must be 1-1/2" minimum to carry volume of pump discharge. Check local codes to determine if a check valve is required in your system. In cold climates, check valves are not used to prevent effluent from freezing in piping.

If using as a sump pump, a check valve is recommended.

**Piping – Sewage Applications (2" or Less Solids)**

In any case, piping must not be smaller than pump discharge.

When installed in a sewage system, pipe must be capable of handling semi-solids of at least 2" (5.1 cm) diameter.

The rate of flow in the discharge pipe must keep any solids present in suspension in the fluid. To meet minimum flow requirements (2 feet (.6 m) per second in discharge line), size pipe as follows:

A Pipe Size Of:	Will Handle a Flow Rate Of:
1-1/2" (3.8 cm)	12 GPM (45 LPM)
2" (5.1 cm)	21 GPM (79 LPM)
2-1/2" (6.3 cm)	30 GPM (113 LPM)
3" (7.6 cm)	48 GPM (181 LPM)

Use a 2" (5.1 cm) swing check valve in pump discharge to prevent backflow of liquid into sump basin. Check valve should be a free flow valve that will easily pass solids.

**NOTICE:** For best performance of check valve when handling solids, do not install it with discharge angled more than 45° above the horizontal. Do not install check valve in a vertical position as solids may settle in valve and prevent opening on startup.

Drill a 3/16" (4.7mm) hole in discharge pipe about 1"-2" (2.5 - 5.1cm) above pump discharge connection (but below check valve) to prevent airlocking the pump.

### ELECTRICAL

**▲WARNING** **Hazardous voltage. Can shock, burn, or cause death.** When installing, operating, or servicing this pump, follow safety instructions listed below.

- Step 1. DO NOT splice the electrical power cord.
- Step 2. DO NOT allow electrical cord plug to be submerged.
- Step 3. DO NOT use extension cords. They are a fire hazard and can reduce voltage sufficiently to prevent pumping and/or damage motor.
- Step 4. DO NOT handle or service pump while it is connected to power supply.
- Step 5. DO NOT remove grounding prong from plug or modify plug. To protect against electrical shock, the power cord is a three-wire conductor and includes a 3-prong grounded plug. Plug pump into a 3-wire, grounded, grounding-type receptacle. Connect pump according to electrical codes that apply.

For automatic operation, plug or wire pump into an automatic float switch or pump controller. Pump will run continuously when plugged directly into an electrical outlet. Connect or wire pump to an individual branch circuit with no other outlets or equipment in the circuit. Size fuses or circuit breakers according to chart below.

**▲WARNING** **Risk of electrical shock and fire. Be sure that power supply information (Voltage/ Hertz/Phase) on pump motor nameplate matches incoming power supply exactly. Install pump according to all electrical codes that apply.**

FPSE Model	H.P.	Voltage	Individual Branch Circuit Required (Amps)	Dual Element Time Delay Fuse Amps
2800A	1/3	115	15	10
3200A	4/10	115	15	10

### OPERATION AND INSTALLATION

**NOTICE:** Do not allow pump to run in a dry sump. It will void the warranty and may damage the pump.

An automatic overload protector in the motor will protect motor from burning out due to overheating/overloading. When motor cools down, overload protector will automatically reset and start motor.

If overload trips frequently, check for cause. It could be a stuck impeller, wrong/low voltage, or electrical failure in motor. If an electrical failure in the motor is suspected, have it serviced by a competent repairman.

Pump is permanently lubricated. No oiling or greasing is required.

### GENERAL

**▲WARNING** **Hazardous voltage. Can shock, burn, or cause death.** Before removing pump from basin for service, always disconnect electrical power to pump and control switch.

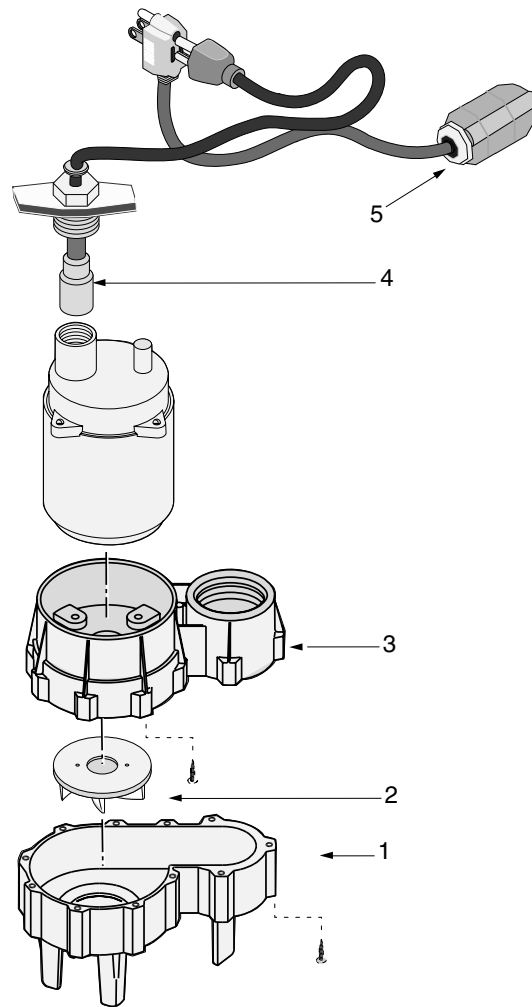
**▲WARNING** **Risk of electrical shock. Can burn or kill.** Do not lift pump by over cord. See “Cord Lift Warning” on Page 5.

Submerge pump in a disinfectant solution (chlorox or chlorine) for at least one hour before disassembling pump.

The pump motor contains a special lubricating oil which should be kept clean and free of water at all times.

**⚠ WARNING** Sudden Starts. If power to pump is on when thermal overload resets, pump may start without warning. If you are working on pump, you may get an electrical shock or **impeller may catch fingers or tools.** Disconnect power before servicing pump.

<p><b>A. Pump fails to operate:</b></p>	<ol style="list-style-type: none"> <li>1. Check to be sure that power cord is securely plugged into outlet. Disconnect power to outlet before handling pump or motor.</li> <li>2. Check to be sure you have electrical power.</li> <li>3. Check that liquid fluid level is high enough to activate switch or controller.</li> <li>4. Check to be sure that 3/16" (4.7 mm) vent hole in discharge pipe is not plugged.</li> <li>5. Check for blockage in pump inlet, impeller, check valve or discharge pipe.</li> <li>6. Thermal overload may have tripped. Test start pump; if it starts and then stops immediately, disconnect from power source for 30 minutes to allow motor to cool, then reconnect to power source. Check for cause of overheating/overloading.</li> </ol>
<p><b>B. Pump fails to empty sump:</b></p>	<ol style="list-style-type: none"> <li>1. Be sure all valves in discharge valve are fully open.</li> <li>2. Clean out discharge pipe and check valve.</li> <li>3. Check for blockage in pump inlet or impeller.</li> <li>4. Pump not sized properly. A higher capacity pump may be required.</li> </ol>
<p><b>C. Pump will not shut off:</b></p>	<ol style="list-style-type: none"> <li>1. Check switch or controller automatic floats for proper operation and location. See installation instructions for switch/controller.</li> <li>2. If pump is completely inoperative or continues to malfunction, consult your local serviceman.</li> </ol>



**REPAIR PARTS LIST – 2800A, 3200A SERIES**

Key No.	Part Description	Qty	FPSE2800A-08 115 Volt	FPSE3200A-08 115 Volt
1	Lower Volute	1	PW1-12P	PW1-11P
2	Impeller	1	PW5-13P	PW5-15P
3	Upper Volute	1	PW1-10P	PW1-10P
4	Power Cord	1	PS117-51-TSE	PS117-53-TSE
5	Automatic Float Switch	1	FP18-15BD	FP18-15BD

**IF MOTOR FAILS, REPLACE PUMP.**