



Water is Our Business®

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OWNER'S MANUAL

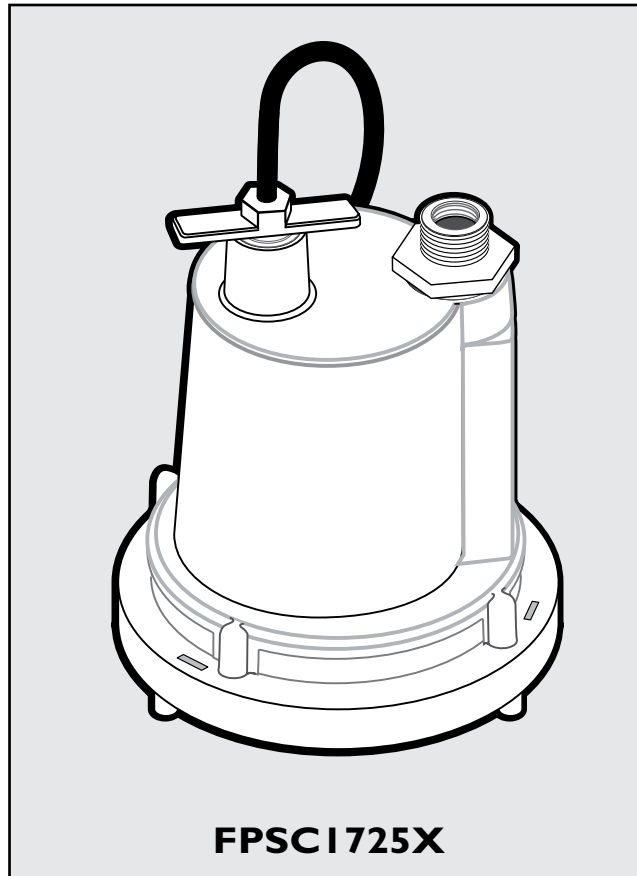
**Submersible Utility Pump**

NOTICE D'UTILISATION

**Pompe submersible à usage général**

MANUAL DEL USUARIO

**Bomba sumergible de uso general**



**Installation/Operation/Parts**

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

**Call 800-365-6832**

**English. . . . . Pages 2-6**

**Installation/Fonctionnement/Pièces**

*Pour plus de renseignements concernant l'utilisation, l'installation ou l'entretien,*

**Composer le (800) 365-6832**

**Français. . . . . Pages 7-11**

**Instalación/Operación/Piezas**

*Para mayor información sobre el funcionamiento, instalación o mantenimiento de la bomba:*

**Llame al 800-365-6832**

**Español . . . . . Páginas 12-16**

**Important Safety Instructions**

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation, operation, and maintenance of the product.

**⚠** 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** indicates a hazard which, if not avoided, *will* result in death or serious injury.

**⚠ WARNING** indicates a hazard which, if not avoided, *could* result in death or serious injury.

**⚠ CAUTION** indicates a hazard which, if not avoided, *could* result in minor or moderate injury.

**NOTICE** addresses practices not related to personal injury.

**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.

**California Proposition 65 Warning**

**⚠ WARNING** This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Pump water only with this pump.

**NOTICE** This unit is not designed as a waterfall or fountain pump, or for applications involving salt water or brine! Use with waterfalls, fountains, salt water or brine will void warranty.

Do not use where water recirculates.

Not designed for use as a swimming pool drainer.

Do not use this pump in water with fish present. If any oil leaks out of the motor it can kill fish.

**Specifications**

Power supply required. . . . . 120V, 60 HZ.  
 Liquid Temp. Range. . . . . Less Than 120° F (50° C)  
 Individual Branch Circuit Required (min.) . . . . . 15 Amps  
 Pump Discharge . . . . . 1-1/4" NPT  
 Adapter . . . . . 3/4" Garden Hose

**⚠ WARNING Risk of fire and explosion.** Can cause severe injury, property damage or death. Do not use in explosive atmospheres. Pump water only with this pump.

**Performance**

	Discharge Feet of Head					
	0	5	10	15	20	25
<b>GPH</b>	1320	1170	1020	810	510	0
<b>GPM</b>	22	20	17	13	9	0

**Electrical & Switch Specifications**

HP	Motor Full Load Amps	Individual Branch Circuit Required (Amps)
1/4	5.6	15

1. Know the pump application, limitations, and potential hazards.
2. Do not use in water where fish are present.
3. Disconnect the power before servicing.
4. Release all pressure within the system before servicing any component.
5. Drain all water from the system before servicing.
6. Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury and/or property damage.
7. Check hoses for weak or worn condition before each use. Making certain all connections are secure.
8. Periodically inspect the pump and system components. Keep free of debris and foreign objects. Perform routine maintenance as required.
9. Provide a means of pressure relief for pumps whose discharge line can be shut-off or obstructed.
10. Personal Safety:
  - a. Wear safety glasses at all times when working with the pumps.
  - b. Keep work area clean, uncluttered and properly lighted – replace all unused tools and equipment.
  - c. Keep visitors at a safe distance from the work area.
  - d. Make the workshop child-proof – with padlocks, master switches, and by removing starter keys.
11. When wiring an electrically driven pump, follow all of the electrical and safety codes that apply.
12. This equipment is only for use on 120 volt (single phase) and is equipped with an approved 3-conductor cord and 3-prong, grounding-type plug.

**▲WARNING Risk of electric shock.** Can shock, burn or kill. To reduce the risk of electric shock, pull the plug before servicing. This pump has not been investigated for use in swimming pool areas. The pump is supplied with a grounding conductor and grounding-type attachment plug. Be sure it is connected only to a properly grounded grounding-type receptacle.

Where a 2-prong wall receptacle is encountered, it must be replaced with properly grounded 3-prong receptacle installed in accordance with the codes and ordinances that apply.

Do not walk on wet area until all power has been turned off. If the shut-off box is in the basement, call the electric company or hydro authority to shutoff the service to house, or call your local fire department for instructions. Failure to follow this warning can result in a fatal electrical shock.

Do not lift the pump by the power cord.

13. All wiring should be performed by a qualified electrician.
14. Make certain the power source conforms to the requirements of your equipment.
15. Protect the electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking the cord. Replace or repair damaged or worn cords immediately.
16. Do not touch an operating motor. Motors are designed to operate at high temperatures.
17. Do not handle the pump or pump motor, or change fuses with wet hands or when standing on wet or damp surface, or in water.

## Installation

1. Set the pump on a hard surface in at least 2" of water.
2. Connect the discharge line with the fittings provided.
3. The pump should not be installed on clay, dirt, mud or sand surfaces. Although the pump will usually pass small particles suspended in water, clean the area to be pumped of small stones and gravel which could clog the pump.

**NOTICE** Grass, mud, sand or pea gravel can clog the pump and reduce it's performance. Keep the pump inlet screen clean.

4. To reduce motor noise and vibrations when using rigid pipe, a short length of rubber hose (e.g. radiator hose) can be connected into the discharge line near the pump using suitable clamps.
5. **Power Supply: Pump is designed for 120 V., 60 Hz., operation** and requires a minimum 15 amp. individual branch circuit. Pump is supplied with a 3-wire cord with grounding-type plug.

**▲WARNING Risk of electric shock.** Can shock, burn or kill. Pump should always be electrically grounded to a suitable electrical ground such as a grounded water pipe or a properly grounded metallic raceway, or ground wire system. Do not cut off round ground pin.

6. If the pump discharge line is exposed to an outside sub-freezing atmosphere, the line exposed must be installed so any water remaining in pipe will drain to the outfall by gravity. Failure to do this can cause water trapped in the discharge line to freeze which could result in damage to pump.
7. Check the operation of pump by observing through one complete cycle.

**▲CAUTION Risk of flooding.** Can cause personal injury and/or property damage. Failure to make this operational check may lead to improper operation, premature failure, and flooding.

## Operation

**⚠ WARNING Risk of electric shock.** Can shock, burn or kill. Do not handle a pump or pump motor with wet hands or when standing on wet or damp surface, or in water.

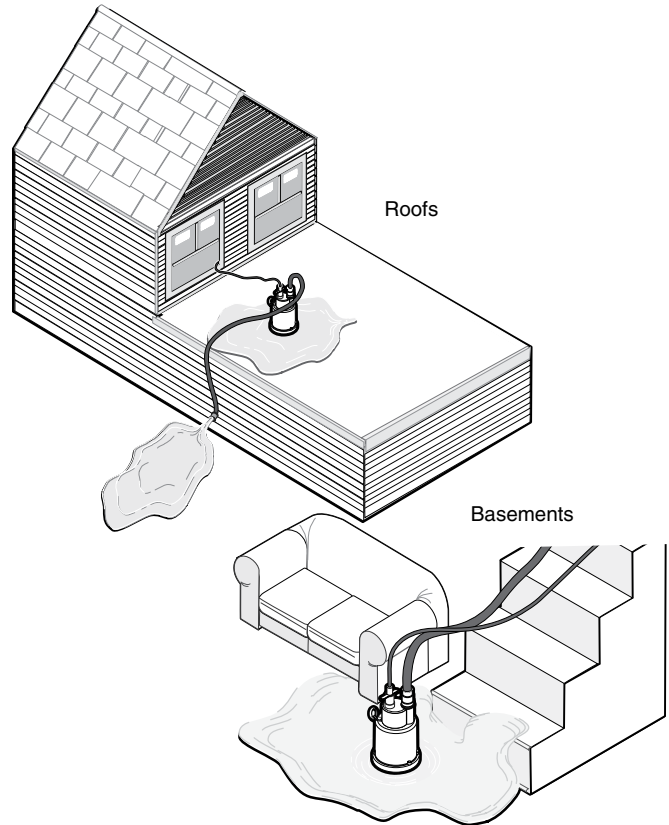
1. The shaft seal depends on water for lubrication and for cooling. Do not operate the pump unless it is submerged in water. The seal may be damaged if allowed to run dry.
2. The pump will not remove all water. During manual operation the pump will pump down to within 1/8" of the pumping surface. If the optional switch is used, the final water level is determined by placement of the switch.

**NOTICE** For long cycle times, the pump must be submerged to prevent the motor from overheating. A fully submerged pump is preferred for proper cooling when a pump runs for a long time.

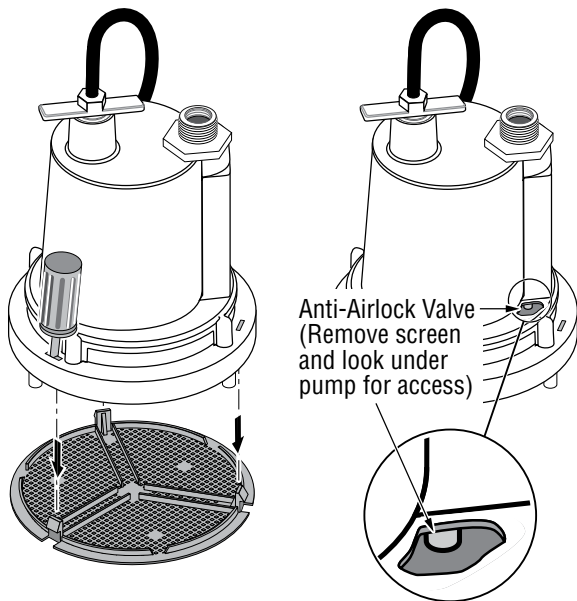
## Airlocks

When a pump airlocks, it runs but does not move any water. An airlock will cause the pump to overheat and fail. This pump has a built in anti-airlock hole. See Figure 1 for the location of the hole. Leakage from the anti-airlock hole is normal.

If you suspect an airlock, unplug the pump, clean out the anti-airlock hole with a paper clip or a piece of wire, and restart the pump.

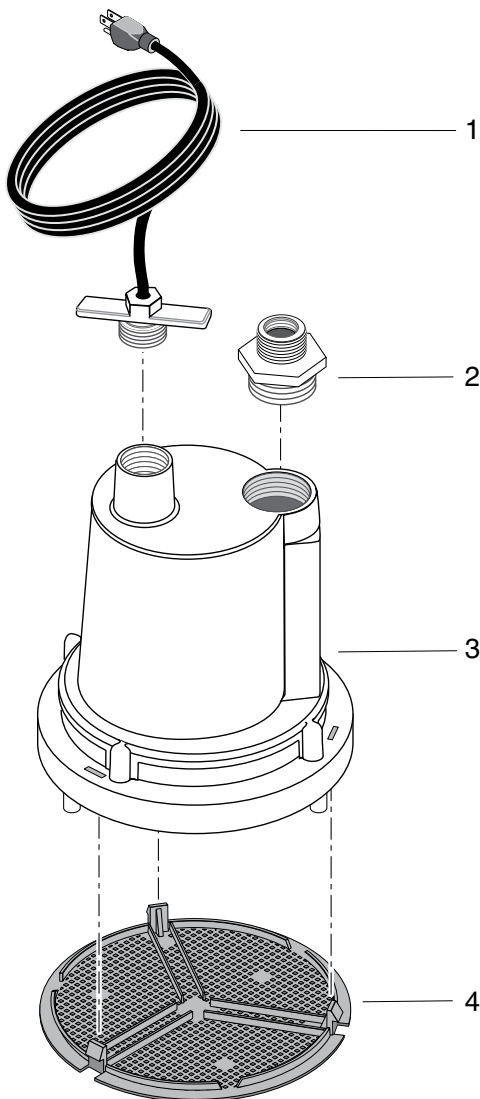


**Figure 2 - Typical installations**



**Figure 1 - Unsnap screen with screwdriver and tap out to clean it. Be sure all snaps catch when reinstalling it.**

Symptom	Probable Cause(s)	Corrective Action
Pump won't start or run.	Pump is not plugged in.	Check and see if pump is plugged in to a proper outlet.
	Blown fuse or breaker.	If blown, replace with fuse of proper size or reset breaker.
	Low line voltage.	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company or hydro authority.
	Defective motor.	Replace pump.
Pump starts and stops.	Motor is overheating.	Discharge or intake are obstructed. Pump is in too shallow of water.
Pump operates but delivers little or no water.	Restricted discharge (obstacle or ice in piping).	Remove pump and clean pump and piping.
	Restricted intake.	Remove the pump and clean out the intake screen.
	Low line voltage.	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company or hydro authority.
	Worn or plugged impeller.	Replace pump.
	Anti-airlock hole is plugged.	Turn off the pump, clean out the anti-airlock hole, and restart the pump.



## Repair Parts

Ref	Description	Qty.	Part Number
1	Power Cord	1	PS117-54-TSU
2	Adapter	1	HA5
3	Motor Assembly	1	**
4	Inlet Screen	1	PS8-129P

\*\* If the motor fails, replace the entire pump.

**Retain Original Receipt For Warranty Eligibility**

**Limited Warranty**

This Limited Warranty is effective June 1, 2011 and replaces all undated warranties and warranties dated before June 1, 2011. FLOTEC warrants to the original consumer purchaser (“Purchaser” or “You”) that its products are free from defects in material and workmanship for a period of twelve (12) months from the date of the original consumer purchase. If, within twelve (12) months from 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 herein. Note that this limited warranty applies to manufacturing defects only and not to ordinary wear and tear. All mechanical devices need periodic parts and service to perform well. This limited warranty does not cover repair when normal use has exhausted the life of a part or the equipment.

The original purchase receipt and product warranty information label are required to determine warranty eligibility. Eligibility is based on purchase date of original product – not the date of replacement under warranty. The warranty is limited to repair or replacement of original purchased product only, not replacement product (i.e. one warranty replacement allowed per purchase). Purchaser pays all removal, installation, labor, shipping, and incidental charges.

For parts or troubleshooting assistance, DO NOT return product to your retail store - contact FLOTEC Customer Service at 800-365-6832.

Claims made under this warranty shall be made by returning the product (except sewage pumps, see below) to the retail outlet where it was purchased or to the factory immediately after the discovery of any alleged defect. FLOTEC will subsequently take corrective action as promptly as reasonably possible. No requests for service will be accepted if received more than 30 days after the warranty expires. Warranty is not transferable and does not apply to products used in commercial/rental applications.

**Sewage Pumps**

DO NOT return a sewage pump (that has been installed) to your retail store. Contact FLOTEC Customer Service. Sewage pumps that have seen service and been removed carry a contamination hazard with them.

If your sewage pump has failed:

- Wear rubber gloves when handling the pump;
- For warranty purposes, return the pump’s cord tag and original receipt of purchase to the retail store;
- Dispose of the pump according to local disposal ordinances.

**Exceptions to the Twelve (12) Month Limited Warranty**

Product	Warranty Period
FP0F360AC, FP0FDC	90 days
FP0S1775A, FP0S1790PCA, FP0S2400A, FP0S2450A, FP0S4100X, FP2800DCC, FPCP-20ULST, FPPSS3000, FPSC2150A, FPSC3150A, FPSC3350A	2 Years
4” Submersible Well Pumps, FP0S3200A, FP0S3250A, FP0S6000A, FPSC1725X, FPSC2200A, FPSC2250A, FPSE3601A, FPPSS5000	3 Years
FP7100 Series Pressure Tanks, E100ELT, E3305TLT, E3375TLT, E5005TLTT, E50TLT, E50VLT, E75STVT, E75VLT, FPSC3200A, FPSC3250A, FPSC4550A	5 Years

**General Terms and Conditions; Limitation of Remedies**

You must pay all labor and shipping charges necessary to replace product covered by this warranty. This warranty does not apply to the following: (1) acts of God; (2) products which, in FLOTEC’s sole judgment, have been subject to negligence, abuse, accident, misapplication, tampering, or alteration; (3) failures due to improper installation, operation, maintenance or storage; (4) atypical or unapproved application, use or service; (5) failures caused by corrosion, rust or other foreign materials in the system, or operation at pressures in excess of recommended maximums.

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 LIMITED WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE FOREGOING LIMITED WARRANTIES SHALL NOT EXTEND BEYOND THE DURATION 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 legal rights and You may also have other rights which vary from state to state.

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