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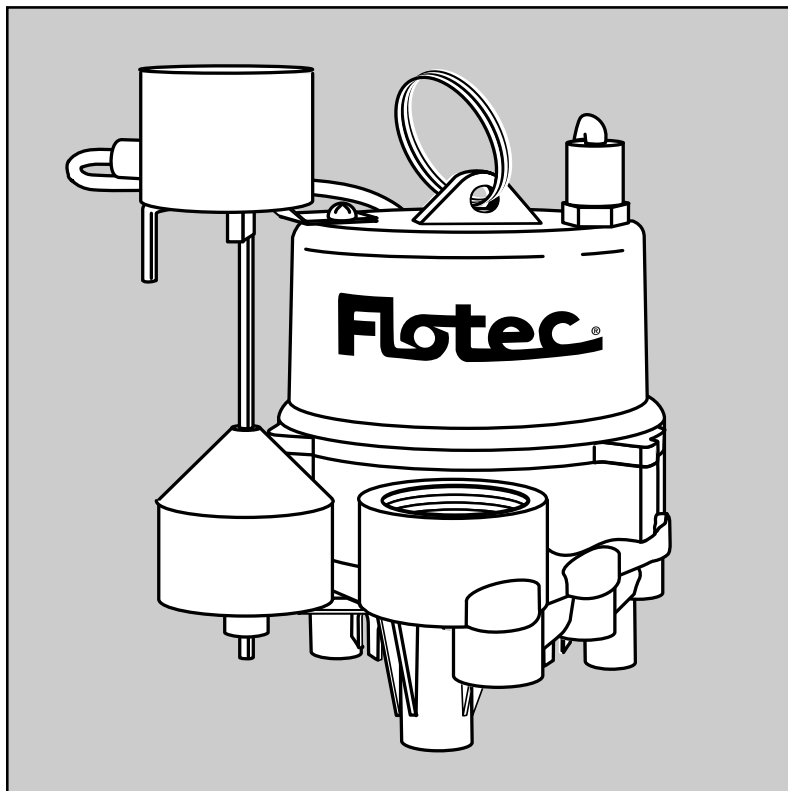
Water
 is Our
Business®

OWNER'S MANUAL
**IRONMATE® 1/2 HP Cast Iron
 Submersible Sump Pump**

NOTICE D'UTILISATION
**Pompe de puisard submersible en
 fonte de 1/2 ch IRONMATE®**

MANUAL DEL USUARIO
**Bomba sumergible de sumidero
 IRONMATE® en hierro fundido
 de 1/2 CV**

IRONMATE®



Installation/Operation/Parts

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

Call 1-800-365-6832

English Pages 2-7

Installation/Fonctionnement/Pièces

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

Composer le 1 (800) 365-6832

Français Pages 8-13

Instalación/Operación/Piezas

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

Llame al 1-800-365-6832

Español Paginas 14-19

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

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

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

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

Electrically powered sump pumps normally give many years of trouble-free service when correctly installed, maintained, and used. However, unusual circumstances (interruption of power to the pump, dirt/debris in the sump, flooding that exceeds the pump's capacity, electrical or mechanical failure in the pump, etc.) may prevent your pump from functioning normally. To prevent possible water damage due to flooding, consult your dealer about installing a secondary sump pump, a DC backup sump pump, and/or a high water alarm. See the "Troubleshooting Chart" in this manual for information about common sump pump problems and remedies. For more information, see your retailer, call Flotec customer service at 1-800-365-6832 or visit our website at www.flotecwater.com.

⚠ WARNING **Hazardous Voltage. Risk of electrical shock.** Shock can cause serious injury or death. Failure to follow the warnings below can result in fatal electric shock.

1. If your basement has water or moisture on the floor, do not walk on the wet area until all the power has been turned off. If the shut-off box is in the basement, call the electric company or the hydro authority to shut off the service to the house, or call your local fire department for instructions. Do not handle the pump or pump motor with wet hands or when standing on wet or damp surfaces.
2. The pump is equipped with a three-prong, grounding cord and plug. Plug into a properly grounded, grounding-type receptacle only. Where a 2-prong wall receptacle encountered, it must be replaced

with a properly grounded 3-prong receptacle installed in accordance with codes and ordinances that apply. Do not modify the cord or plug. Plug into a 115V, 15 amp individual branch circuit only. Make certain your power source conforms to the requirements of your equipment.

3. All wiring should be performed by a qualified electrician.
4. Protect the electrical cord from sharp objects, hot surfaces, oils, and chemicals.

⚠ WARNING **Hazardous pressure. Risk of explosion and personal injury.** Failure to follow the warnings below can result in personal injury.
5. Secure the discharge line before starting pump. An unsecured discharge line will whip, possible causing personal injury and/or property damage.
6. Know the pump application, limitations and potential hazards.
7. Wear safety glasses at all times when working with pump.
8. Keep the work area clean, uncluttered and properly lighted - replace all unused tools and equipment.
9. Keep visitors at a safe distance from working area.
10. Make the workshop child-proof - with padlocks, master switches, and by removing starter keys.
11. Release all pressure within the system before servicing any component.
12. Provide a means of pressure relief for pumps whose discharge line can be shut-off or obstructed.
13. Check hoses for weak or worn condition before each use, making certain that all connections are secure.

⚠ WARNING **Burn Hazard. Can cause personal injury.** Do not touch an operating motor. Modern motors are designed to operate at high temperatures. To do so can cause personal injury.

⚠ WARNING **Risk of flooding. Can cause personal injury or property damage.** If a flexible discharge hose is used, pump may move around in sump when motor starts. If it moves far enough so that the switch hits the side of sump, the switch may stick and prevent the pump from starting. Make sure the pump is secured so it cannot move around in the sump.
14. Periodically inspect the sump, pump and system components. Keep the sump free of debris and foreign objects. Perform routine maintenance as required.
15. Drain all the water from the system before servicing.

Thank you for purchasing a top quality, factory tested pump.

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ATTACH ORIGINAL RECEIPT HERE FOR WARRANTY CONSIDERATION.

Flotec Lifetime Warranty

FLOTEC warrants that the products specified in this warranty are free from defects in material or workmanship.

If within the duration of product use by the product owner, any FLOODMATE® 7000 (FP0S6000A), IRONMATE® (FPSC4550A), Sewage Ejector (FPSE3601A), Pedestal Pump (FPPSS5000), or Utility Pump (FPSC1725X), 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

Owner 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 excess of recommended maximums as set forth in the owner’s manual.

Requests for service under this warranty shall be made by returning the 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.

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

FLOTEC SHALL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER. THE FOREGOING WARRANTY IS 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.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. Although this warranty identified specific remedies you may also have other rights and remedies.

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DESCRIPTION

This Submersible Sump Pump is designed for home sumps. The unit is equipped with a 3-prong grounding-type power cord. The shaded pole motor is oil filled and sealed for cooler running. Sleeve bearing on the motor shaft never needs lubrication. Automatic reset thermal protection.

SPECIFICATIONS

Power Supply Required.....115V, 60HZ.
 Liquid Temperature Range130° F (55° C Maximum)
 Individual Branch Circuit Required15.0 Amps
 Motor Full Load (maximum).....12.0 Amps
 Discharge Pipe Size.....1-1/2" NPT

PERFORMANCE

Total Lift in Feet	0'	5'	10'	15'	20'	32'
Capacity in GPH	4500	4080	3480	2880	2380	0

INSTALLATION

1. Install the pump in a sump pit with a minimum diameter of 10" (254mm). The sump depth should be 14" minimum(356mm). Construct the sump pit of tile, concrete, steel or plastic. Check local codes for approved materials.
2. Install the pump in the pit so the switch operating mechanism has maximum possible clearance.
3. The pump should not be installed on clay, earth or sand surfaces. Clean the sump pit of small stones and gravel which could clog the pump. Keep the pump inlet screen clear.

NOTICE: Do not use ordinary pipe joint compound on plastic pipe. Pipe joint compound can attack plastics.

4. Install discharge plumbing. When using rigid pipe, use plastic pipe. Wrap the thread with Teflon™ tape. Screw the pipe into the the pump hand tight plus 1 – 1-1/2 turns.

▲WARNING Risk of flooding. Can cause personal injury or property damage. If a flexible discharge hose is used, make sure the pump is secured in the sump to prevent movement. Failure to secure the pump may allow pump movement, switch interfere e and prevent the pump from starting or stopping.

5. To reduce motor noise and vibrations, a short length of rubber hose (1-7/8" (47.6mm) ID, e.g. radiator hose) can be connected into the discharge line near the pump using clamps.
6. Install an inline check valve to prevent backward flow through the pump when the pump shuts off.
7. Power Supply: The pump is designed for 115V, 60 Hz., operation and requires a 15 amp individual branch circuit. Both the pump and the switch are supplied with a 3-wire cord with grounding-type plug. The switch plug is inserted directly into the outlet and the pump plug inserts into the opposite end of the switch plug.

▲WARNING Hazardous Voltage. Can shock, burn or cause death. The 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 the ground pin.

8. If the discharge line is exposed to outside sub-freezing temperatures, that portion of the line must be installed so any water remaining the pipe will drain to the outfall by gravity. Failure to do this can cause the water trapped in the discharge line to freeze which could result in damage to the pump.
9. After the piping and the check valve have been installed, the unit is ready for operation.
10. Check the operation by filling the sump with water and observing the pump operation through one complete cycle.

▲WARNING Flood hazard. Can cause personal injury or property damage. Check the operation of the pump by observing through one complete cycle. Failure to make this operational check may lead to improper operation, premature failure, and flooding.

™ E.I. DuPont DeNemours and Company, Corporation.

Vertical float switch installation for replacement.

Vertical switch is pre-installed at the factory for the IRONMATE™:

See Figure 1.

1. Mount the bracket to the switch body.
2. Mount the float on to the rod.
3. Mount the retaining strap and float stop on to the rod.
4. Slide the rod into the switch housing.
5. Fasten the rod with the pin.
6. Mount the switch assembly on the pump.

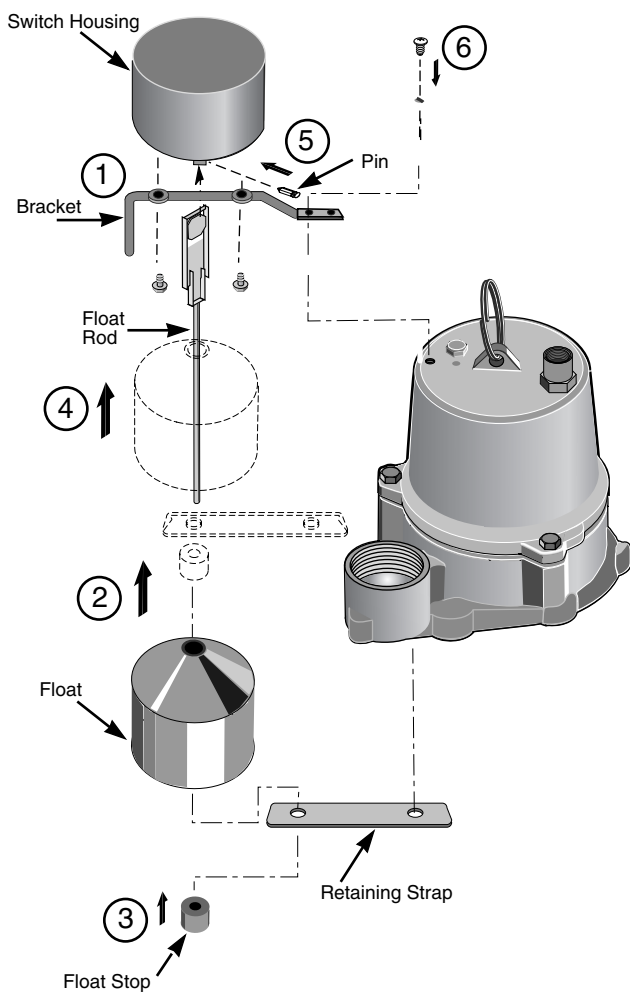


Figure 1 – Vertical switch assembly

OPERATION

▲WARNING Risk of electric shock. Shock can burn or kill. Disconnect the power from the unit. Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface, or in water. Failure to follow this warning can result in fatal electrical shock.

1. The shaft seal depends on water for lubrication. Do not operate pump unless it is submerged in the water as seal may be damaged if allowed to run dry.
2. The motor is equipped with an automatic reset thermal protector. If the temperature in the motor should rise unduly, the switch will cut off all power before damage can be done to the motor. When the motor has cooled sufficiently, the switch will reset automatically and restart the motor. If the protector trips repeatedly, the pump should be removed and checked as to the cause of the difficulty. Low voltage, long extension cords, clogged impeller, very low head or lift, etc., could cause cycling.
3. The pump will not remove all water. If a manually operated pump is operating and suddenly no water comes out of the discharge hose, shut off the unit immediately. The water level is probably very low and the unit has broken its prime.

Automatic Float Switch

1. Fill sump with 12"-14" of water to check operation and tightness of connections. During first automatic cycle, it may take 30 seconds or more before pump is primed and pumping. Turn-on will occur approximately 6.5" above pump base.
2. Check turn-off position. Turn-off will occur approximately 2" above pump base.
3. If pump does not operate, check electrical service.
4. Float must be free to move up and down in sump. Make sure there is no debris in sump and that the switch is clear from the sump wall.

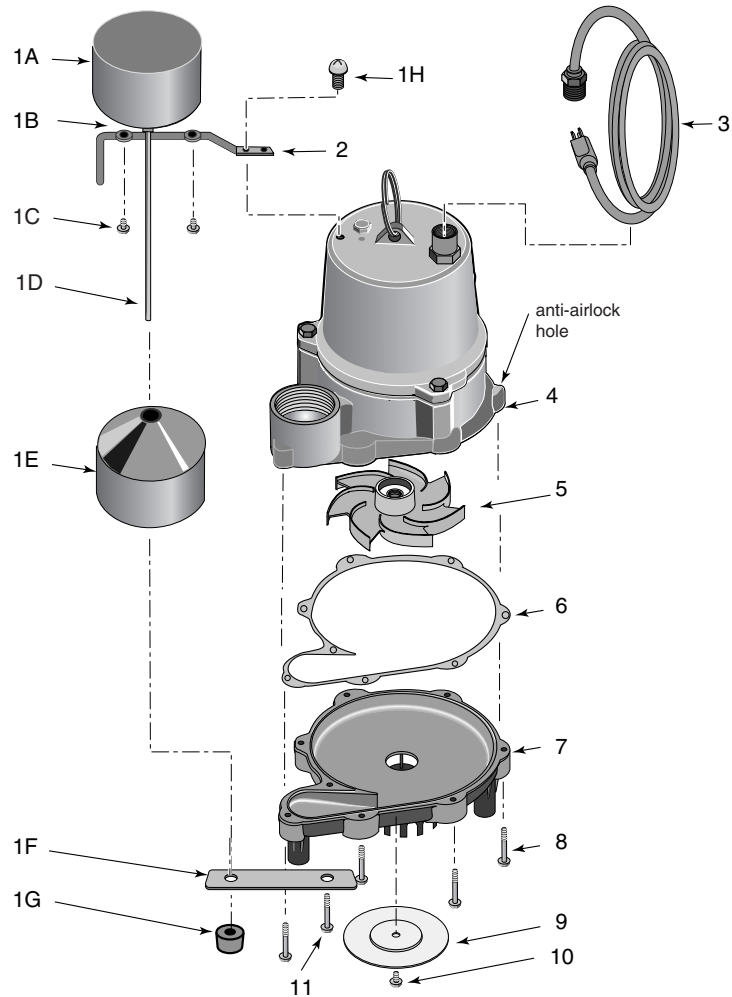
AIRLOCKS

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 the exploded view on the repair parts page 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.

⚠ WARNING **Hazardous Voltage. Can shock, burn or kill.** Disconnect power to pump before servicing.

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor does not run	Blown fuse Tripped circuit Disconnected plug Corroded plug Inadequate water level Tripped overload Defective switch Defective motor Float in wrong position	Replace. Reset. Reinstall. Clean prongs. Add water and test. Allow pump to cool. Adjust float; replace switch. Replace pump. See Automatic Float Switch section.
Motor hums but flow is reduced or no flow	Impeller jammed Plugged check valve Blocked screen Line leak Worn Impeller Defective motor The anti-airlock hole is plugged.	Unplug the pump and unclog. Unplug the pump and unclog. Unplug the pump and clean screen. Unplug the pump and repair. Unplug the pump and replace pump. Unplug the pump and replace pump. Turn off the pump for a few seconds, clean out the anti-airlock hole and restart the pump.
Runs continuously	Plugged screen Defective switch Float obstruction	Unplug the pump and clean screen. Unplug the pump and replace switch. See Automatic Float Switch section.



Key No.	Part Description	FPSC4550A
1	Float Switch Package (includes items 1A thru 1H)	FPS17-66
1A	Vertical Switch	
1B	Retaining Pin (**)	
1C	Screw (2)	
1D	Switch Rod	
1E	Float	
1F	Retaining Strap	
1G	Float Stop	
1H	Screw, #8-32x1/2" Hex Head	
2	Vertical Switch Mounting Bracket	PS19-20SS
3	Cord and Plug Assembly	PW117-237-TSE
4	Motor/Upper Volute	*
5	Impeller	PS5-29P
6	Gasket	PS20-21
7	Lower Volute	PS1-34P
8	Lower Pump Body Screw, #10-32x1" Slotted Hex Head, SS (7)	U30-966SS
9	Stainless Steel Intake Plate	U43-142SS
10	Intake Plate Screw, #6x1/4" Phillips Pan Head, SS	U30-972SS
11	Lower Pump Body Screw, #10-32x1-1/8" Slotted Hex Head	U30-967SS

* If motor fails replace entire pump.

** Not illustrated.