

*Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.*

# SPI Vertical Switches

## Description

SPI vertical float switches are designed for applications where a pump down operation is required in processing/circulation systems, providing automatic liquid level control with a range of 1 to 6 inches. These float switches are UL Listed, and CSA Certified with ratings of 10 AMPS, 1/2 H.P. @ 120 and 240 VAC. Cords are PVC or CPE jacketed with a 120 or 240 volt piggyback plug. For use in liquids up to 140° F.

## General Safety Information

**⚠ WARNING** *In all installations, one side of the line going to the pump is always energized ("HOT"). This is true whether the switch is ON or OFF!*

**⚠ WARNING** *In any installation where property damage and / or personal injury might result from an inoperative switch or unit it controls due to power outages discharge line blockage, or any other reason, a backup system(s) should be used.*

**⚠ WARNING** *DO NOT USE SWITCH IN FLAMMABLE OR EXPLOSIVE FLUIDS OR ATMOSPHERES. Switch should only be used with liquids compatible with switch components materials. Failure to follow this warning can result in fire, explosion, personal injury, and property damage.*

1. Disconnect power before servicing.
2. Personal Safety:
  - a. Wear safety glasses at all times when working with pumps.
  - b. Keep work area clean, uncluttered, and properly lighted – replace all unused tools and equipment.
  - c. Keep visitors at a safe distance from work area.
  - d. Make workshop child-proof with padlocks, master switches, and by removing starter keys.
3. Wiring should be preformed by a qualified electrician.
4. Make certain power source conforms to requirements of your equipment.
5. Protect electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking cord. Replace or repair damaged or worn cords immediately.
6. Do not handle switch or cord with wet hands or when standing on wet or damp surface, or in water.
7. Installation must comply with the United States National Electrical Code (NEC) or the Canadian Electrical Code (CEC), as applicable, and with all local codes and ordinances that apply.
8. Keep these instructions.
9. Do not remove cord label.
10. Provide adequate protection and guarding around moving parts.
11. Periodically inspect switch and system components. Adjust and tighten tether length and fastenings as needed. Replace switch if any abrasion, wear, insulation erosion, or other damage is noted.



# SPI Vertical Float Switches

## Installation

**⚠ WARNING** Risk of electrical shock. Can burn or kill. To reduce risk of electrical shock, pull plug before replacing switch. Be sure switch is connected only to a properly grounded grounding-type receptacle. Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with codes and ordinances that apply (See Figure 1). If use with a pedestal sump pump or other non-submersible motor, be sure switch setting does not allow water to touch motor.

**⚠ WARNING** Short circuit/ electrical hazard. An incorrect connection may cause an electric shock, produce an electric shock, or burn out the pump motor, resulting in property damage and or personal injury. Make sure all connections are correct before plugging switch in to outlet.

**⚠ CAUTION** The electrical outlet and pump voltage must match. Electrical outlet must be located outside of pump chamber.

**⚠ CAUTION** Risk of flooding. Operate pump switch with water in pit through cycle to verify proper liquid control levels.

**NOTE:** These floats contain no user serviceable parts.

1. Position vertical switch on discharge pipe to establish low level to maintain at least 2 inches of liquid level.
2. Tighten pipe clamp around pipe and through mounting brackets slots.
3. Lower shut-off and upper turn-on levels can be adjusted.
4. Plug piggyback plug (current tap) into a grounded outlet, then plug pump into the piggyback plug.
5. Cycle system for proper operation. Make adjustments if needed and cycle system again to proper operation.
6. Make sure the float is free and unobstructed allowing a minimum of 2 inches from bottom of the pit or any object under switch. Secure all excessive and loose cord to avoid future problems.

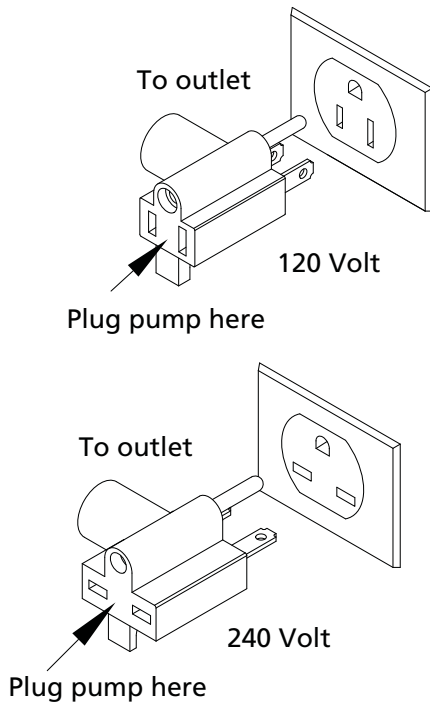


Figure 1

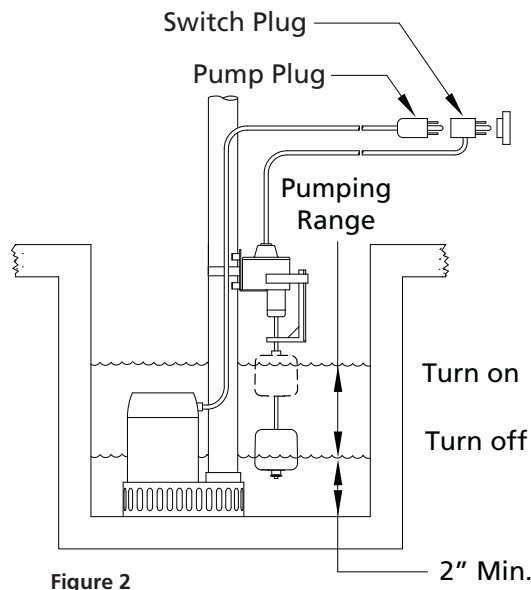


Figure 2