



# Double Float® Master Pump Switch and Double Float® Pump Switch Installation Instructions

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These mercury and mechanically activated pump switches provide automatic control of pumps in non-potable water and sewage applications. They are well-suited for confined applications requiring a large pumping range. They are not sensitive to rotation or turbulence.

The Double Float® and Double Float® Master pump switches consist of two floats. Each float contains a heavy-duty mercury or mechanical switch. The float assembly contains a holding relay which enables the floats to function in series.

The holding relay eliminates pump chatter in turbulent conditions allowing the Double Float® and Double Float® Master pump switches to operate relay control panels for larger pump applications.

## DOUBLE FLOAT® MASTER PUMP SWITCH



- Mechanically activated switch.
- Adjustable pumping range of 3 to 48 inches (7.6 to 122 cm) with increased pumping range up to 6 feet (1.8 meters) available.
- Five-year limited warranty.

## DOUBLE FLOAT® PUMP SWITCH



- Mercury activated switch.
- Adjustable pumping range of 1.75 to 48 inches (4.45 to 122 cm) with increased pumping range up to 6 feet (1.8 meters) available.
- Five-year limited warranty.

### PREVENTATIVE MAINTENANCE

- Periodically inspect the product. Check that the cable has not become worn or that the housing has not been damaged so as to impair the protection of the product. Replace the product immediately if any damage is found or suspected.
- Periodically check to see that the float is free to move and operate the switch.
- Use only SJE Rhombus® replacement parts.
- The Double Float® pump switch contains mercury and MUST be recycled or disposed of according to local, state, and Federal codes.

## SJE RHOMBUS® FIVE-YEAR LIMITED WARRANTY

Five-Year Limited Warranty. For complete terms and conditions, please visit [www.sjrhombus.com](http://www.sjrhombus.com)

### NOTICE!

Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment to ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.

**⚠ WARNING****ELECTRICAL SHOCK HAZARD**

Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.

**⚠ WARNING****EXPLOSION OR FIRE HAZARD**

Do not use with flammable liquids. Install in accordance with ANSI/NFPA 70. Suitable for usage with intrinsically safe circuit extensions as defined by UL 698A.

Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, float housing, or cable.

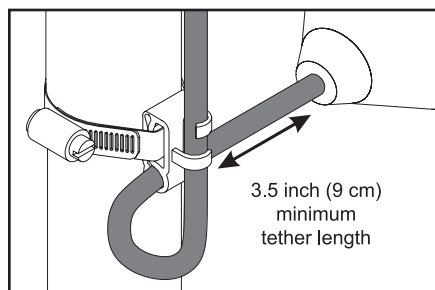
**For detailed specifications on this product, or for the complete line of SJE Rhombus® panel, alarm, and switch products, visit our web-site at [www.sjrhombus.com](http://www.sjrhombus.com).**

**MOUNTING THE SWITCHES**

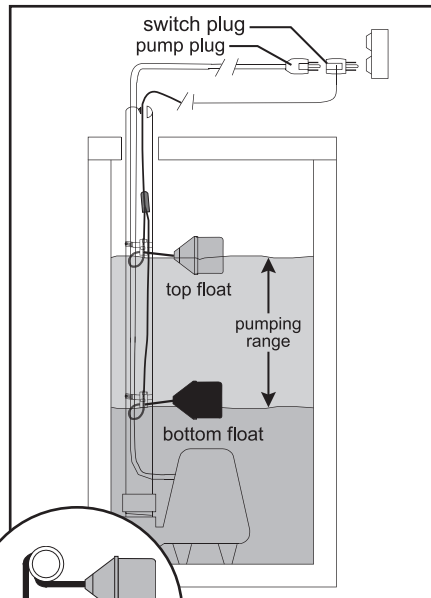
**Failure to mount floats as outlined below may inhibit switch operation.**

1. Determine pumping range for installation as shown in Figures B & C.
2. If floats are mounted less than 16 inches (40.6 cm) apart, mount floats at a 90° angle from each other as shown in Figure B.
3. Place cord into clamp as shown in Figures A and B.
4. Locate the clamp at the desired activation level and secure to discharge pipe as shown in Figure A. **NOTE:** Top and bottom floats are labeled. Ensure they are mounted per Figures B & C.
5. Tighten the hose clamp using a screwdriver. Over tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.
6. Mount the top float in a similar manner. Stow excess cable away from float operation.
7. Check installation. Allow system to cycle to insure proper operation.

**NOTE:** All hose clamp components are made of 18-8 stainless steel. See your SJE Rhombus supplier for replacements.

**Figure A****PIGGY-BACK PLUG INSTALL**

- Electrical outlet must not be located in pump chamber.
  - Electrical outlet voltage, piggy-back plug voltage, and pump voltage must match.
1. Follow steps 1 through 6 of "Mounting The Switches."
  2. Insert 120 VAC piggy-back plug into 120 VAC outlet or 230 VAC piggy-back plug into 230 VAC outlet.
  3. Plug pump into piggy-back plug as shown in Figure B.
  4. Check installation. Allow system to cycle to insure proper operation.

**Figure B - Double Float®**

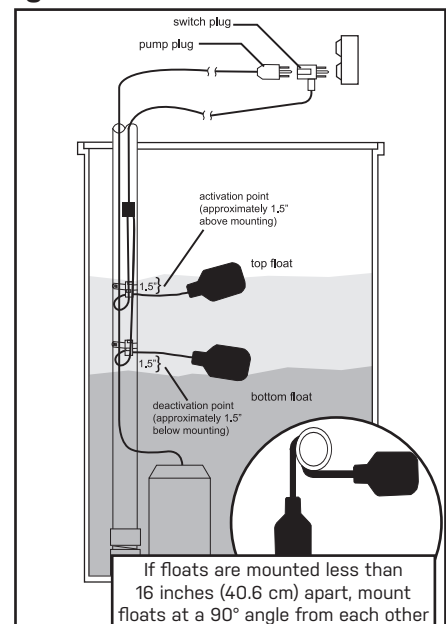
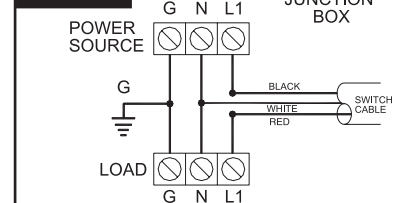
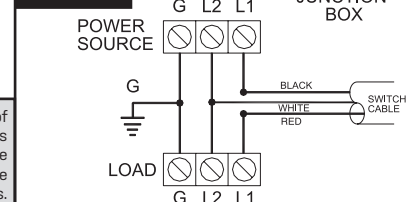
If floats are mounted less than 16 inches (40.6 cm) apart, mount floats at a 90° angle from each other

**⚠ WARNING**

In 230 VAC installations, one side of the line going to the load is always **HOT**. This condition exists if the switch is on or off. Install double pole disconnect on all 230 VAC circuits.

**DIRECT WIRE INSTALL**

1. Follow steps 1 through 6 of "Mounting The Switches."
2. Wire switch as shown below. **NOTE:** Switch voltage and supply voltage must match to ensure proper operation of switches.
3. Check installation. Allow system to cycle to insure proper operation.

**Figure C - Double Float® Master****120 VAC****230 VAC**

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