

SJE-Rhombus®

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

These mercury and mechanically activated, wide angle 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



Patent Pending

- Mechanically activated switch.
- Adjustable pumping range of 10 to 56 inches (25.4 to 142.2 cm) with increased pumping range up to 6 feet (1.8 meters) available.
- Three-year limited warranty.

DOUBLE FLOAT® PUMP SWITCH



Patent Pending

- 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.
- Three-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® THREE-YEAR LIMITED WARRANTY

SJE-RHOMBUS® warrants to the original consumer that this product shall be free of manufacturing defects for three years after the date of consumer purchase. During that time period and subject to the conditions set forth below, SJE-RHOMBUS® will repair or replace, for the original consumer, any component which proves to be defective due to defective materials or workmanship of SJE-RHOMBUS®.

ELECTRICAL WIRING AND SERVICING OF THIS PRODUCT MUST BE PERFORMED BY A LICENSED ELECTRICIAN.

THIS WARRANTY DOES NOT APPLY: (A) to damage due to lightning or conditions beyond the control of SJE-RHOMBUS®; (B) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; (C) to failures resulting from abuse, misuse, accident, or negligence; (D) to units which are not installed in accordance with applicable local codes, ordinances, or accepted trade practices, and (E) to units repaired and/or modified without prior authorization from SJE-RHOMBUS®.

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

TO OBTAIN WARRANTY SERVICE: The consumer shall assume all responsibility and expense for removal, reinstallation, and freight. Any item to be repaired or replaced under this warranty must be returned to SJE-RHOMBUS®, or such place as designated by SJE-RHOMBUS®.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. SJE-RHOMBUS® SHALL NOT, IN ANY MANNER, BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF A BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.

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 this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70.

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.

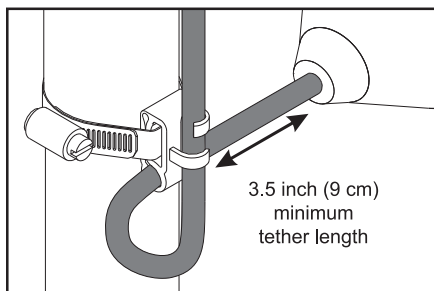
For detailed specifications on this product, or for the complete line of SJE-Rhombus® panel, alarm, and switch products, visit our web-site at www.sjerhombus.com.

MOUNTING THE SWITCHES

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

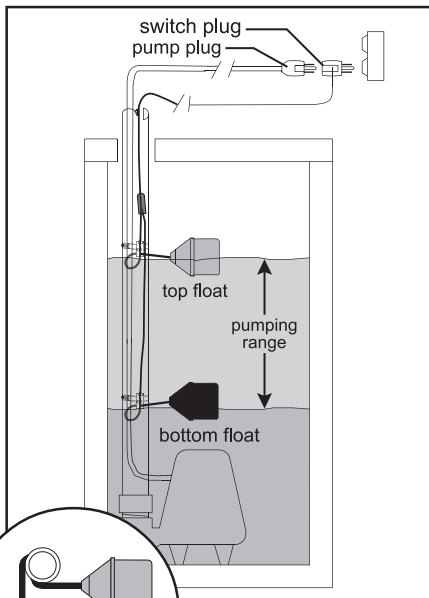
1. Determine pumping range for installation as shown in Figures B & C.
2. If floats are mounted less than 16 inches (40.6 cm) apart, mount floats at a 90° angle from each other as shown in Figure B.
3. Place cord into clamp as shown in Figures A and B.
4. Locate the clamp at the desired activation level 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®

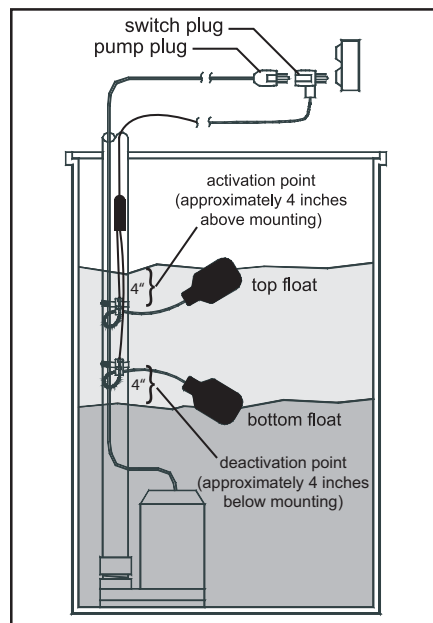
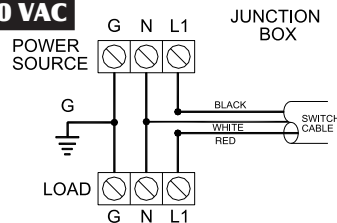
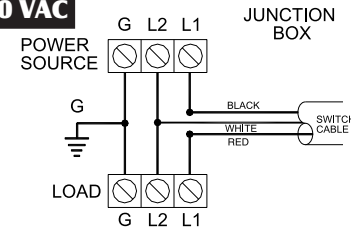
If floats are mounted less than 16 inches (40.6 cm) apart, mount floats at a 90° angle from each other



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**

SJE-Rhombus®

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