

Pump Switch Installation Instructions

SJE Rhombus® wide-angle pump switches are designed to provide automatic control of pumps in water and sewage applications.

SJE PUMPMASTER®



Mechanically-activated pump switch for direct control of pumps in:

- Sewage
- Water

U.S. Patent Nos. 5,087,801 & 5,142,108

tether length (inches)	3.5 min	6	10	14	18	22	24 max
pumping range (inches)	7	10	16	22	28	33	36

SJE PUMPMASTER® PLUS



Mechanically-activated pump switch for direct control of pumps in:

- Sewage
- Water

U.S. Patent Nos. 5,087,801 & 5,142,108

tether length (inches)	3.5 min	6	10	14	18	22	24 max
pumping range (inches)	7	10	16	22	28	33	36

SJE PUMPMASTER® SPDT



Mechanically-activated pump switch for direct control of pumps in:

- Sewage
- Water

U.S. Patent Nos. 5,087,801 & 5,142,108

tether length (inches)	3.5 min	6	10	14	18	22	24 max
pumping range (inches)	7	10	16	22	28	33	36

JUNIOR SUPER SINGLE®



Mercury-activated pump switch for direct control of pumps in:

- Sewage
- Water
- Non-turbulent applications

U.S. Patent Nos. 4,429,854 & 4,572,934

tether length (inches)	3.5 min	6	8	10	12	15	17 max
pumping range (inches)	6.5	8.5	11	13	14	17	19

SUPER SINGLE®



Mercury-activated pump and control switch for:

- Sewage
- Water

U.S. Patent No. 4,302,641

tether length (inches)	3.5 min	5	7	9	13	15 max
pumping range (inches)	6.5	7.5	8.5	11	12.5	13.5

SJE AMPMASTER®



Mechanically-activated pump switch for direct control of pumps in:

- Sewage
- Water

U.S. Patent Nos. 5,087,801 & 5,142,108

tether length (inches)	5 min	10	14	18	22 max
pumping range (inches)	9	13	17	21	24

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 Junior Super Single® and Super Single® pump switches contain 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.sjerrhombus.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 extensions as defined by UL 698A.

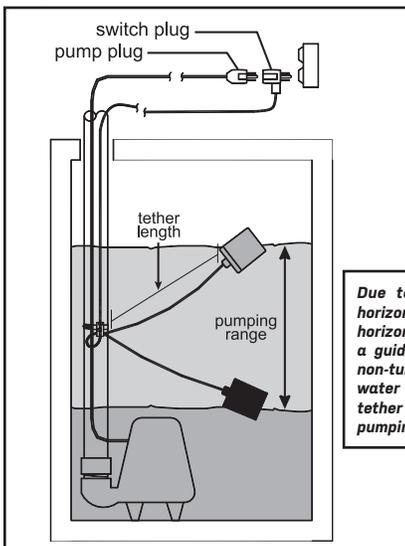
Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to 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.

MOUNTING THE SWITCH

1. Determine the required cord tether length according to product specifications on the front page and as shown in Figure A.
2. Place the cord into the clamp as shown in Figure B.
3. Locate clamp at desired activation level and secure the clamp to the discharge pipe as shown in Figure B. **Note:** Do not install cord under hose clamp.
4. Tighten the hose clamp using 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.
5. Follow direct wire or piggy-back instructions for further installation.

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

Figure A

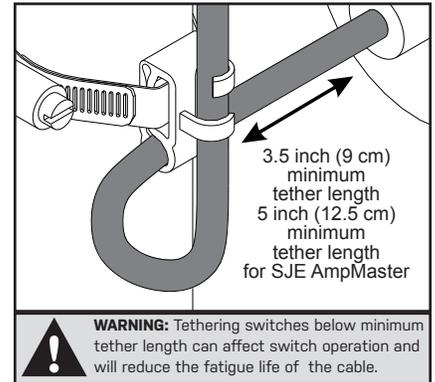
Due to weight of cable, pumping range above horizontal is NOT equal to pumping range below horizontal. Use values published on front page as a guide. Pumping ranges are based on testing in non-turbulent conditions. Range may vary due to water temperature and cord shape. Note: As the tether length increases, so does the variance of the pumping range.

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 4 of "Mounting The Switch."
 2. Insert switch's piggy-back plug into outlet.
 3. Plug pump into piggy-back plug as shown in Figure A.
 4. Check installation. Allow system to cycle to insure proper operation.

DIRECT WIRE INSTALL

1. Follow steps 1 through 4 of "Mounting The Switch."
2. Wire switch as shown in Figure C.
3. Check installation. Allow system to cycle to insure proper operation.

Figure B**Figure C**

		SJE PumpMaster® SPDT Only	
Normally Open and Normally Closed	Normally Closed	Normally Open	
			<p>CONNECTIONS MADE IN DRY JUNCTION BOX</p> <p>Note: Insulate black wire on SPDT models</p> <p>Note: Insulate red wire on SPDT models</p>
⚠ 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.	
		On SPDT Models, insulate unused red or black wires with wire nut. Wire can become electrically hot.	
		Ensure cable connections are performed in a dry junction box or other watertight seal that seals both conductors and cable jacket. Failure to do so could result in electrical shock hazard and/or water traveling down cable and entering the switch. Failure to guard against this may affect switch performance.	



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