



Installation and Operating Instructions

SJE MICROMASTER® PUMP SWITCH

SJE MICROMASTER® SPDT PUMP SWITCH

SJE MICROMASTER® PLUS PUMP SWITCH

SJE MICROMASTER® EP PUMP SWITCH (Earth Plate)

SJE MICROMASTER® PLUS EP PUMP SWITCH (Earth Plate)

SJE-Rhombus® pump switches provide automatic control of pumps in sump, sewage, and non-potable water applications.

SPECIFICATIONS

This equipment is suitable for Category II installations, rated to 60°C, and protected by double insulation. Approved for use in non-potable water and sewage.



SJE MICROMASTER®

SJE MICROMASTER® SPDT

SJE MICROMASTER® EP (Earth Plate)

CABLE:

SJE MicroMaster®: Flexible 18 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)
SJE MicroMaster® SPDT: Flexible 18 gauge, 3 conductor (UL, CSA) SJOW, water-resistant (CPE)
SJE MicroMaster® EP: Flexible 18 gauge, 3 conductor (UL, CSA) SJOW, water-resistant (CPE)

FLOAT HOUSING: All models, 7.0 cm x 12.3 cm, high impact, corrosion resistant polypropylene, has IPX8 protection to a maximum water depth of 10 meters.

ELECTRICAL:

125 VAC Rated Voltage:

Maximum Pump Running Current: 10 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

250 VAC Rated Voltage:

Maximum Pump Running Current: 8 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

Switch must be used with pumps that provide integral thermal overload protection. Switch is not recommended for controlling electric loads less than 100 milliamps, 12 VAC or non-arcing electric loads.

SJE MICROMASTER® PLUS

SJE MICROMASTER® PLUS EP (Earth Plate)

CABLE:

SJE MicroMaster® Plus: Flexible 16 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)
SJE MicroMaster® Plus EP: Flexible 16 gauge, 3 conductor (UL, CSA) SJOW, water-resistant (CPE)

FLOAT HOUSING: All models, 7.0 cm x 12.3 cm, high impact, corrosion resistant polypropylene, has IPX8 protection to a maximum water depth of 10 meters.

ELECTRICAL:

125 VAC Rated Voltage:

Maximum Pump Running Current: 13 amps
Maximum Pump Starting Current: 78 amps
Frequency: 50/60 Hz

250 VAC Rated Voltage:

Maximum Pump Running Current: 13 amps
Maximum Pump Starting Current: 78 amps
Frequency: 50/60 Hz

Switch must be used with pumps that provide integral thermal overload protection. Switch is not recommended for controlling electric loads less than 100 milliamps, 12 VAC or non-arcing electric loads.

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®**.

THIS EXPRESS WARRANTY DOES NOT APPLY TO THE MOTOR START KIT COMPONENT. SJE-RHOMBUS® MAKES NO WARRANTIES OF ANY TYPE WITH RESPECT TO THE MOTOR START KIT.

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.sjerrhombus.com.

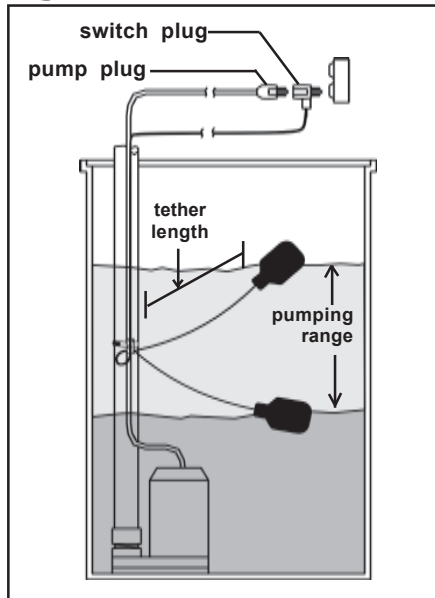
MOUNTING THE SWITCH

WARNING: Do not install switch in direct line of incoming liquid.

- Place the cord into the clamp as shown in Figure B.
- Locate clamp at desired activation level and secure the clamp to the discharge pipe as shown in Figures A and B. **Note:** Do not install cord under hose clamp.
- 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.
- Wire switch as shown in Figure C.
- Check installation. Allow system to cycle to insure proper operation.

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

Figure A



Determining Pumping Range in Centimeters

tether length	9	15	23	30	38	46	56
pumping range	20	28	38	53	71	79	91

Due to weight of cable, pumping range above horizontal is NOT equal to pumping range below horizontal. Use values published 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.

Figure B

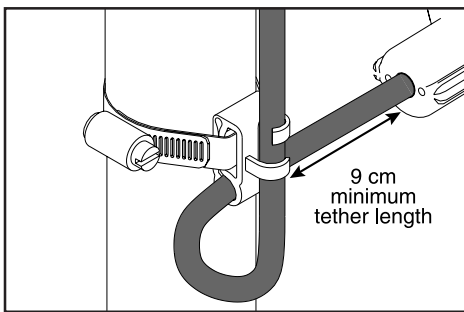


Figure C

SJE MICROMASTER® SPDT ONLY		SJE MICROMASTER® EP & SJE MICROMASTER® PLUS EP		SJE MICROMASTER® & SJE MICROMASTER® PLUS	
125/250 VAC		125/250 VAC		125/250 VAC	
NORMALLY OPEN/PUMP DOWN		NORMALLY CLOSED/PUMP UP		NORMALLY OPEN/NORMALLY CLOSED	
⚠ WARNING					
In 230 VAC installations, one side of the line going to the load is always <u>HOT</u> . 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.					

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.



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Instl. Instr. PN 1012082C
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