SJE RHOMBUS™

SJE MilliAmpMaster™ Control Switches, SJE MicroMaster® AC/DC Pump Switch, and SJE MicroMaster® Plus WS Pump Switch Installation Instructions

These mechanically-activated switches provide automatic control for AC and DC applications in water and sewage applications.

SJE MILLIAMPMASTER™ (narrow-angle version)

Mechanically-activated control switch for:

- Low current, non-arcing applications down to 0.160 mA at 125 VAC
- Water
- Sewage application
- Control differential of 1.5 inches above or below horizontal with 3.5 inch tether

SJE MILLIAMPMASTER™ (wide-angle version)

Mechanically-activated control switch for:

- Low current, non-arcing applications down to 0.160 mA at 125 VAC
- Water
- Sewage application

tether length *(inches)*	3.5 min.	6	9	12	15	18	22 max.
pumping range *(inches)*	8	11	15	21	28	31	36

SJE MICROMASTER® AC/DC

Mechanically-activated pump and control switch for:

- Battery backup pumps
- Arcing loads
- Water
- Sewage applications

tether length *(inches)*	3.5 min.	6	9	12	15	18	22 max.
pumping range *(inches)*	8	11	15	21	28	31	36

SJE MICROMASTER® PLUS WS

Mechanically-activated pump switch for:

- Water
- Sewage applications

tether length *(inches)*	3.5 min.	6	9	12	15	18	22 max.
pumping range *(inches)*	8	11	15	21	28	31	36

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.

SJE-RHOMBUS® FIVE-YEAR LIMITED WARRANTY

Five-Year Limited Warranty. For complete terms and conditions, please visit **www.sjerhombus.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.

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.

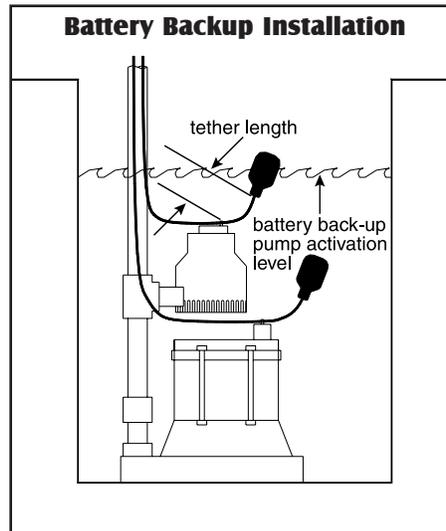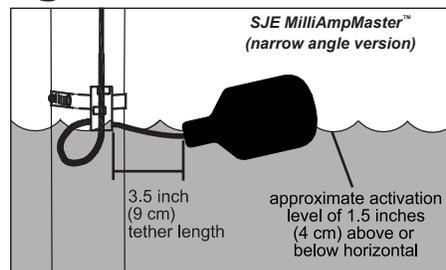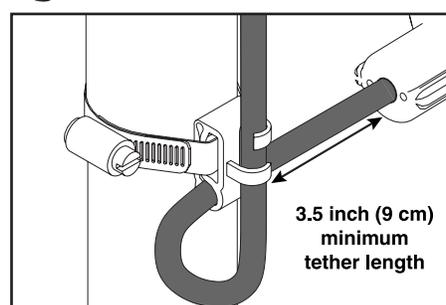## MOUNTING THE SWITCH

1. Determine the required cord tether length according to product specifications on the front page and as shown in Figure A, B & C.
2. Place the cord into the clamp as shown as shown in Figure D.
3. Locate clamp at desired activation level and secure the clamp to the discharge pipe as shown in Figure D.
   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. Wire switch as shown in the wiring diagrams.
6. 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


tether length
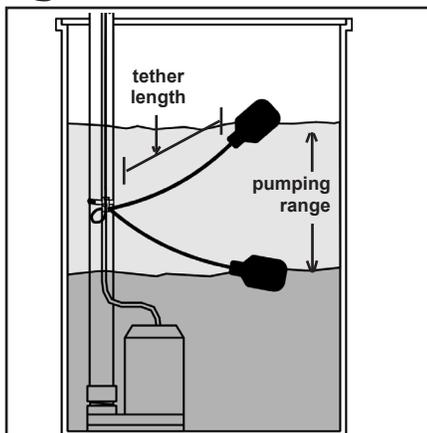
pumping range

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.

Figure B

Battery Backup Installation

tether length

battery back-up pump activation level

Figure C

SJE MilliAmpMaster™ (narrow angle version)

3.5 inch (9 cm) tether length

approximate activation level of 1.5 inches (4 cm) above or below horizontal

Figure D

3.5 inch (9 cm) minimum tether length

WARNING: Tethering switches below minimum tether length can affect switch operation and will reduce the fatigue life of the cable.

DC Wiring Diagram
Normally Open and Normally Closed

POWER SOURCE − +

CONNECTION MADE IN DRY JUNCTION BOX

WHITE

SWITCH CABLE

BLACK

LOAD − +
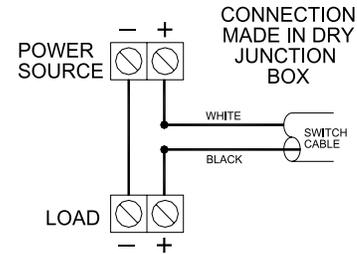
⚠ WARNING Ensure cable connections are performed in a **dry** junction box or other watertight seal that seals both conductors and cable jacket. Failure to do so could result in electrical shock hazard and/or water traveling down cable and entering the switch. Failure to guard against this may affect switch performance.

AC Wiring Diagram
Normally Open and Normally Closed

POWER SOURCE G L2/N L1

CONNECTIONS MADE IN DRY JUNCTION BOX

G

WHITE

SWITCH CABLE

BLACK

LOAD G L2/N L1
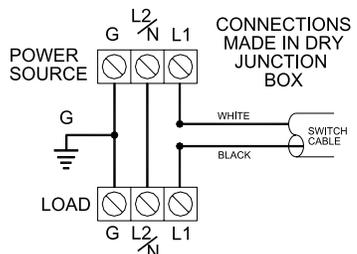
⚠ WARNING In 230 VAC installations, one side of the line going to the load is always **HOT**. This condition exists if the switch is on or off. Install double pole disconnect on all 230 VAC circuits.

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.