



# BO-A-O-VRS Outdoor Alarm Installation Instructions

This alarm system monitors liquid levels in lift pump chambers, sump pump basins, holding tanks, sewage, agricultural, and other non-potable water applications.

The BO-A-O-VRS indoor/outdoor alarm can serve as a high or low level alarm depending on the float switch model used. The alarm horn sounds and the red beacon illuminates when a potentially threatening liquid level condition occurs. A "power on" light on the switch indicates power to the alarm panel.

## BO-A-O-VRS

- Voltage: 120 VAC, 50/60 Hz, 8.5 watts maximum (alarm condition) (circuit not supervised)
- Enclosure meets Type 3R water-tight standard.
- Automatic alarm reset, horn silence switch, and alarm test switch.
- Alarm horn sounds at 85 decibels at 10 feet (3 meters).
- Alarm system (when installed on separate circuit) operates even if pump circuit fails.
- Maximum line impedance for initiating device: 100 ohms.
- Complete package includes standard Vertical Reed Switch with 15 feet (4.57 meters) of cable.
- Three-year limited warranty.

## OPTIONS

When ordered with the alarm, the system is available with:

- auxiliary alarm contacts for easy attachment of remote devices: (circuit not supervised) 120 VAC, 5 amps max., 50/60 Hz
- premounted terminal block so enclosure can also be used as a junction box for splicing pump, pump switch, and pump power. Meets NEC standard for junction boxes. 20 amps, 120/230 VAC.
- 6 foot (1.8 meter) power cord with 120 VAC plug and liquid-tight connectors.

### 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.

### ⚠ 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](http://www.sjerrhombus.com).*

## INSTALLING THE FLOAT SWITCH

1. Place the VRS into the filter as shown in Figure A and twist lock into place.
2. Wire cable leads directly into control device as shown in Figure B.
3. Check installation. Allow system to cycle to insure proper operation.

## INSTALLING THE ALARM

1. Mount alarm box using existing holes in back of box. To ensure water-tight seal, use screws and sealing washers included with alarm. **Note:** Screws are to be located over wall stud or used with a wall anchor sized for a #8 x 1.25 self tapping screw.
2. Determine "conduit-in" locations on alarm as shown in Figure B. **Note:** When used with a pump application, connect alarm to a circuit separate from the pump circuit. This allows alarm to continue to operate if the pump circuit fails.
3. Drill holes for conduit entry, taking care not to damage bosses inside alarm box.
4. Attach conduit.

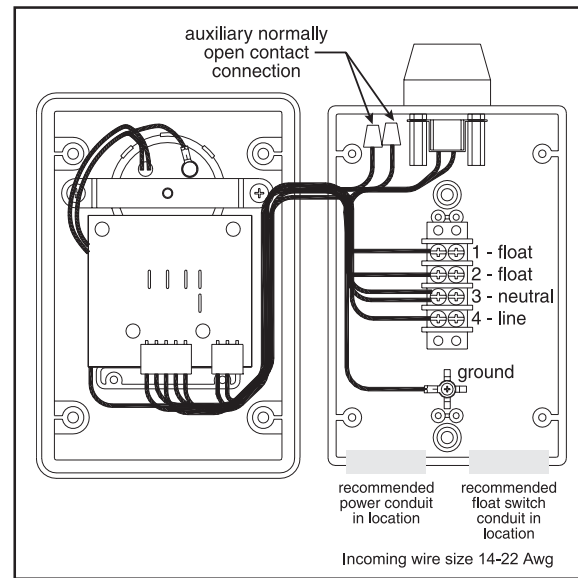
If alarm includes premounted terminal block option, refer now to the Terminal Block Option Wiring Instructions.

5. Bring float switch cable through conduit and wire to terminal block positions 1 and 2 as shown in Figure B.
6. Wire power conductors to terminal block positions 3 and 4 and ground wire to ground termination post as shown in Figure B. **Note:** If terminal block option is used, attach ground wire as shown in Figure A of Terminal Block Option Wiring Instructions.
7. If remote device is used, connect wires as shown in Figure B using supplied wire nuts.
8. Attach alarm box cover using the four pre-installed screws.
9. Turn on power. Light on switch should come on.
10. Check installation by manually tipping the float. The horn and beacon should turn on.
11. Push silence switch to test silence feature.
12. Test unit once per week to insure proper operation.

Figure A



Figure B



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