

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
TEL: (502) 778-2731 • 1 (800) 928-PUMP • FAX: (502) 774-3624

Visit our web site:  
[zoellerpumps.com](http://zoellerpumps.com)

Register your  
Zoeller Pump Company  
Product on our website:  
<http://reg.zoellerpumps.com/>

## CONTROL PANEL for OIL SMART® & OIL GUARD® SYSTEMS INSTALLATION INSTRUCTIONS



### WARNING

1. All installations must be in accordance with the National Electrical Code, and any other applicable state and local electrical requirements.
2. **Do not remove ground pin.** Severe electrical shock could occur.
3. Check with local codes for proper installation.



### WARNING

1. The switch and pump are not rated for explosive environments. This product is intended for hydraulic oils only.

### CONTROL PANEL SETUP INSTRUCTIONS

Be sure the power is turned off before starting.

*Simplex Control Panel:* **For 60 Hz Installations Only**

Connect the Oil Smart® Pump Switch, Oil Smart® Liquid Alarm Switch, Alarm Power Supply, Pump, Pump Power Supply and Dry Contacts (for SCADA if used) as shown on the wiring diagram (See page 3).

*Duplex Control Panel:* **For 60 Hz Installations Only**

Connect the Oil Smart® Pump Switch, Oil Smart® Liquid Alarm Switch, Oil Smart® High Water Alarm Switch, Pump, Pump Power Supply, Alarm Power Supply and Dry Contacts (for SCADA if used) as shown on the wiring diagram (See page 4).

### INSTALLATION INSTRUCTIONS

*For 1-1/2" pipe:* Attach the Oil Smart® Pump Switch, Oil Smart® Liquid Alarm Switch, and Oil Smart® High Water Alarm Switch (if used) to the Quick Mount Brackets using and the screws and nuts provided (See Fig. 1). Snap the pump switch bracket onto the discharge pipe or float tree with the end of the long sensor 2" above the top of the pump. Snap the alarm bracket onto the discharge pipe or float tree with sensor end 2" above the pump switch "on" (See Fig. 3). Snap the Oil Smart® High Water Alarm Switch above the Oil Smart® Liquid Alarm Switch. Place hose clamps under the quick mount brackets as a reference locator for the switch. Mount switches clear of the basin inlet, so they will stay clean. Note: Keep sensors 1" to 2" away from any metallic material.

*For other than 1-1/2" pipe:* Attach the Oil Smart® Pump Switch, Oil Smart® High Water Alarm Switch, (if used) and Oil Smart® Liquid Alarm Switch to the universal bracket. Place the supplied hose clamp through the slots in the bracket before mounting the switch with the screws and nuts provided (See Fig. 2). Clamp the Oil Smart® Pump Switch to the discharge pipe or float tree with the end of the long sensor 2" above the top of the pump (See Fig. 3). Attach the Oil Smart® Liquid

Alarm Switch onto the discharge pipe or float tree with sensor end 2" above the pump's "on" level (See Figure 3). Attach the Oil Smart® High Water Alarm Switch above the Oil Smart® Liquid Alarm Switch. Mount switches clear of the basin inlet, so they will stay clean. Note: Keep sensors 1" to 2" away from any metallic material.

*Float Tree (Optional):* Attach quick mount bracket to basin wall (see Fig. 1). Snap 1-1/2" pipe with cap above bracket. Snap on pump and Oil Smart® Liquid Alarm Switch bracket.

Testing may be done prior to installation in a basin. Pump must be connected to control panel for testing.

### TESTING

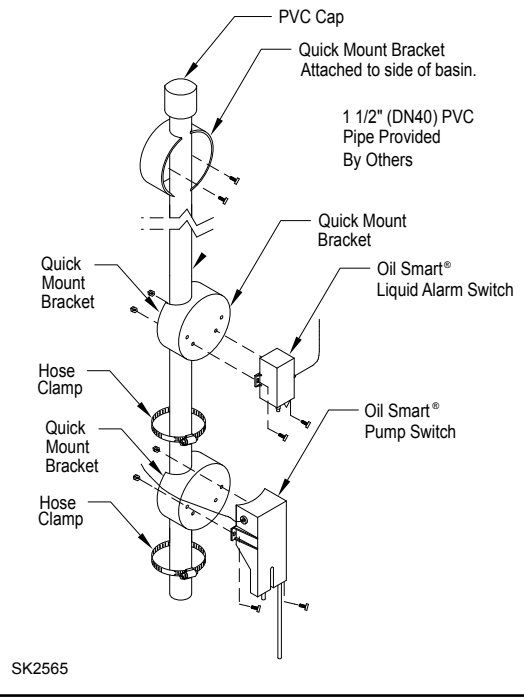
*Oil Smart® Liquid Alarm Switch:* Fill the supplied small cup with oil. Submerge only the plastic lens (optic sensor) into the oil. The alarm will activate showing oil present. The yellow "oil" light and the Red Beacon will illuminate, and the audible alarm will sound. Now, touch finger to the exposed steel sensor; the white water light will turn on.

*Oil Smart® Pump Switch and Control Panel:* Place the hand-off-automatic switch in the automatic position. Place your thumb on the short sensor rod of the Oil Smart® Pump Switch and the pump will start running. While touching the short sensor, touch the long sensor rod with your fingers. Remove your thumb from the short sensor rod as you move your fingers down the long sensor rod until they no longer touch the rod. The pump will turn off. Place the hand-off-automatic switch in the manual position and the pump will run.

### MAINTENANCE

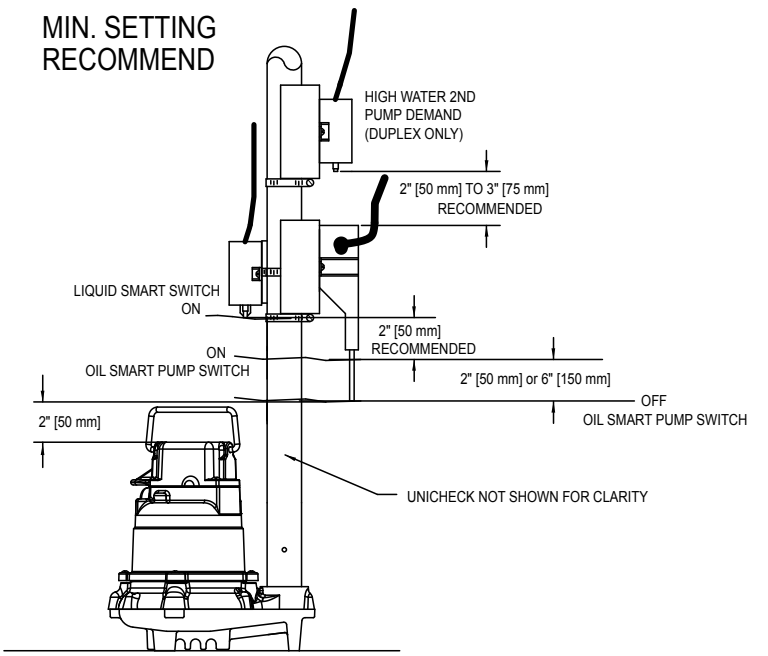
Plastic switch case and stainless sensor leads must be kept clean, free of corrosion, mud, and soap. Clean switches as often as environmental conditions dictate with household isopropyl alcohol. Do NOT use oil-based solvents such as silicone lubricant, penetrating oil, etc. or soap solutions.

**FIGURE 1 Mounting for 1-1/2" Pipe.**



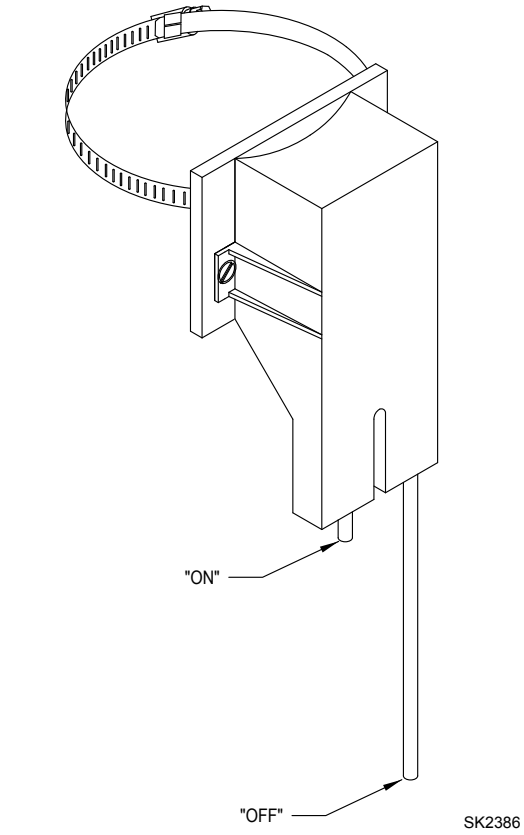
SK2565

**FIGURE 3 Typical Installation of Oil Smart® Pump Switch and Alarm Panel.**



SK2654

**FIGURE 2 Mounting for Other Than 1-1/2" Pipe.**

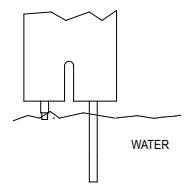


SK2386

**Operation**

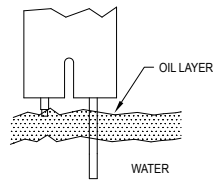
**Normal Condition (Water Only)**

The short sensor probe turns the pump "on" and the long sensor probe turns the pump "off". When the short sensor is in contact with water, the pump will continue to cycle "on and "off" until the short sensor detects oil.



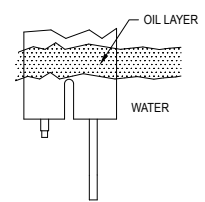
**Oil Present Condition**

The pump will not cycle if oil is in contact with the short sensor.



**High Water (Oil Present Condition)**

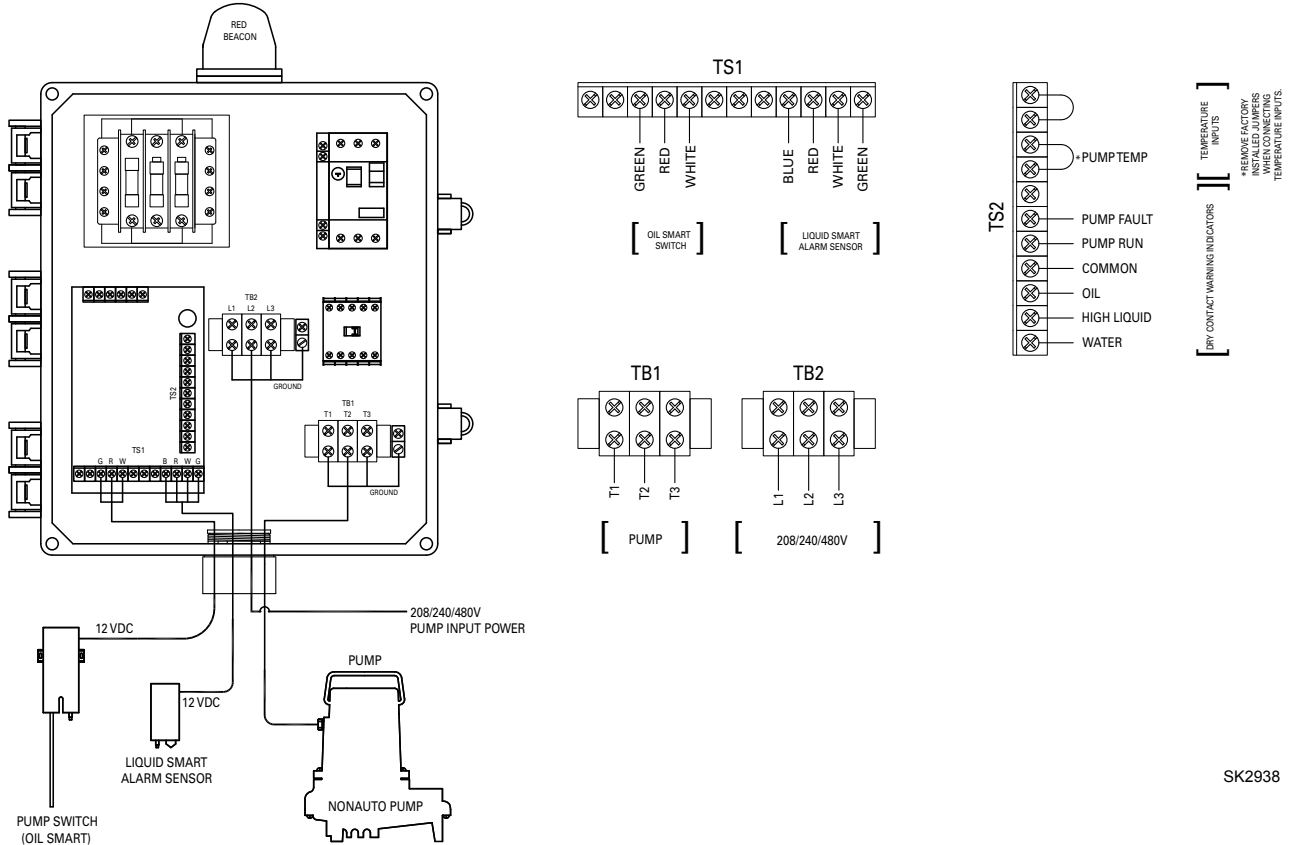
If additional water enters into the basin it will cause the oil layer to raise above the short sensor resulting in the pump cycling.



SK2568



# WIRING DIAGRAM FOR SIMPLEX CONTROL PANEL WITH ALARM THREE PHASE



# WIRING DIAGRAM FOR DUPLEX CONTROL PANEL WITH ALARM THREE PHASE

