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Supersedes
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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 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

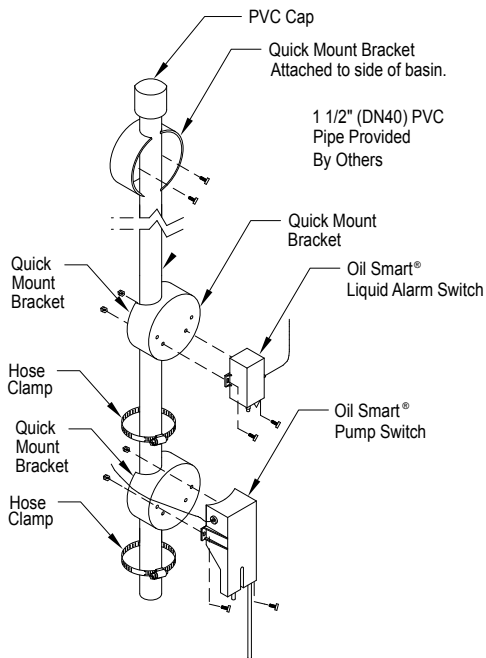
Oil Smart® Liquid Alarm Switch: Fill the supplied small cup with oil. Submerge only the plastic lens (optic sensor) into the oil. The alarm will activate showing oil present. The yellow "oil" light and the Red Beacon will illuminate, and the audible alarm will sound. Now, touch finger to the exposed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

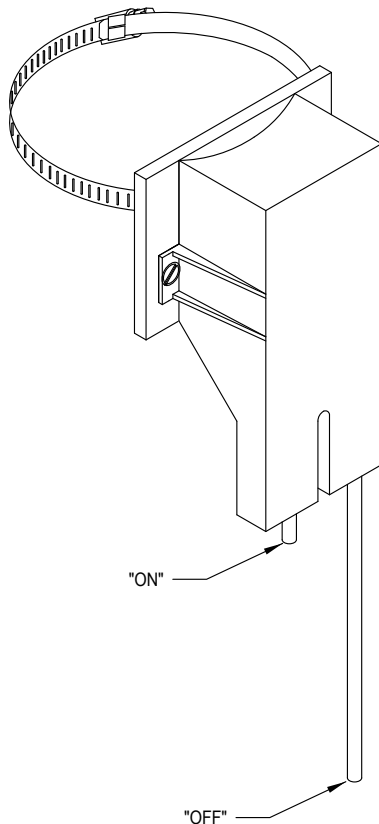
The plastic switch case must be kept clean and free of rust, mud, soap, etc. If the switch is submerged in water during initial installation, the switch must be cleaned. Clean the case and metal sensors with alcohol or an oil base solvent product such as kerosene.

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



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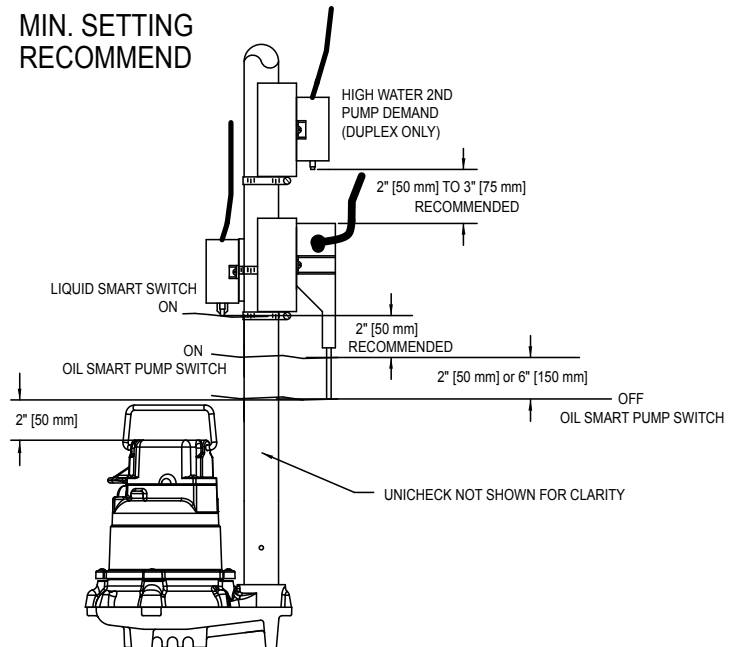
FIGURE 2 Mounting for Other Than 1-1/2" Pipe.



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

MIN. SETTING
RECOMMEND

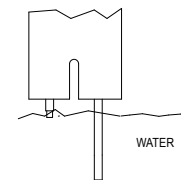


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Operation

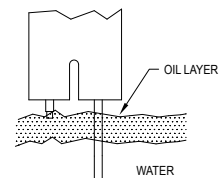
Normal Condition (Water Only)

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.



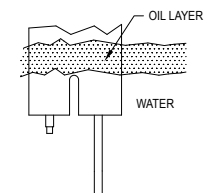
Oil Present Condition

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



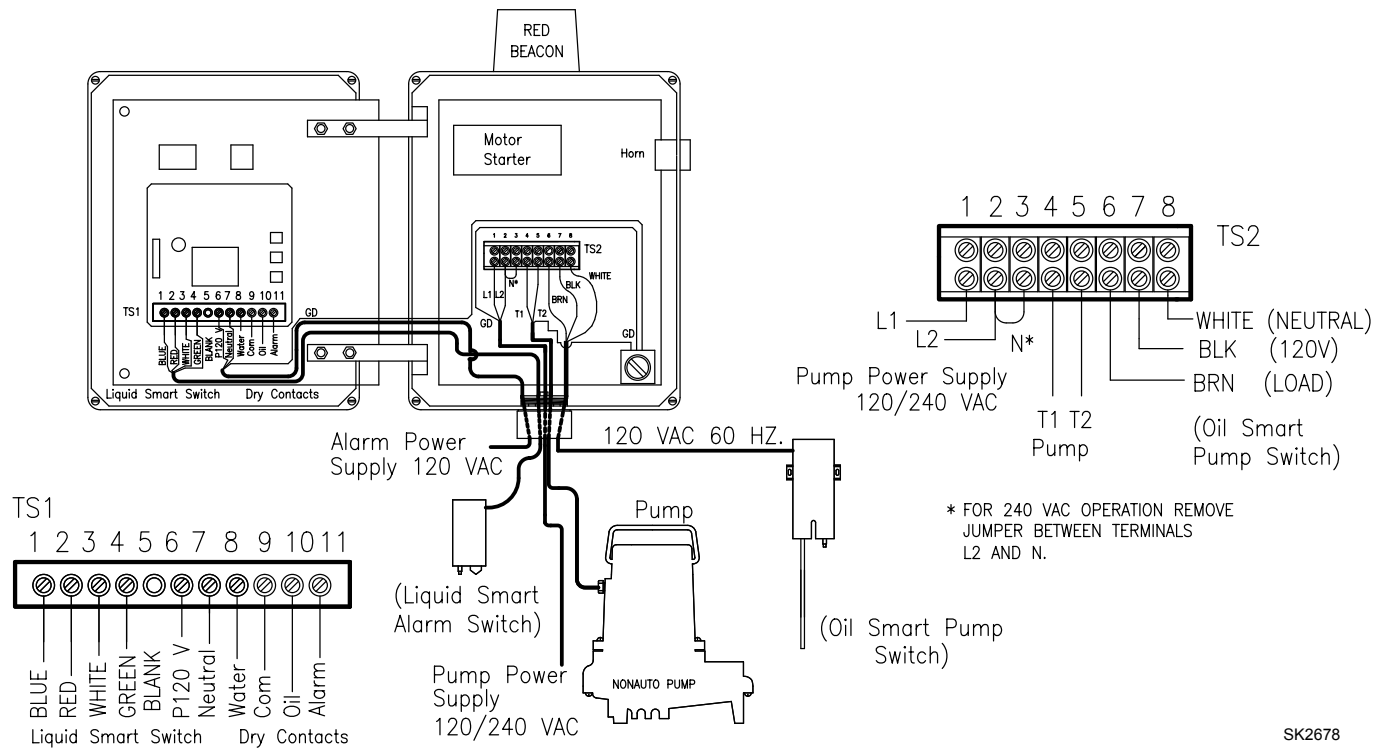
High Water (Oil Present Condition)

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



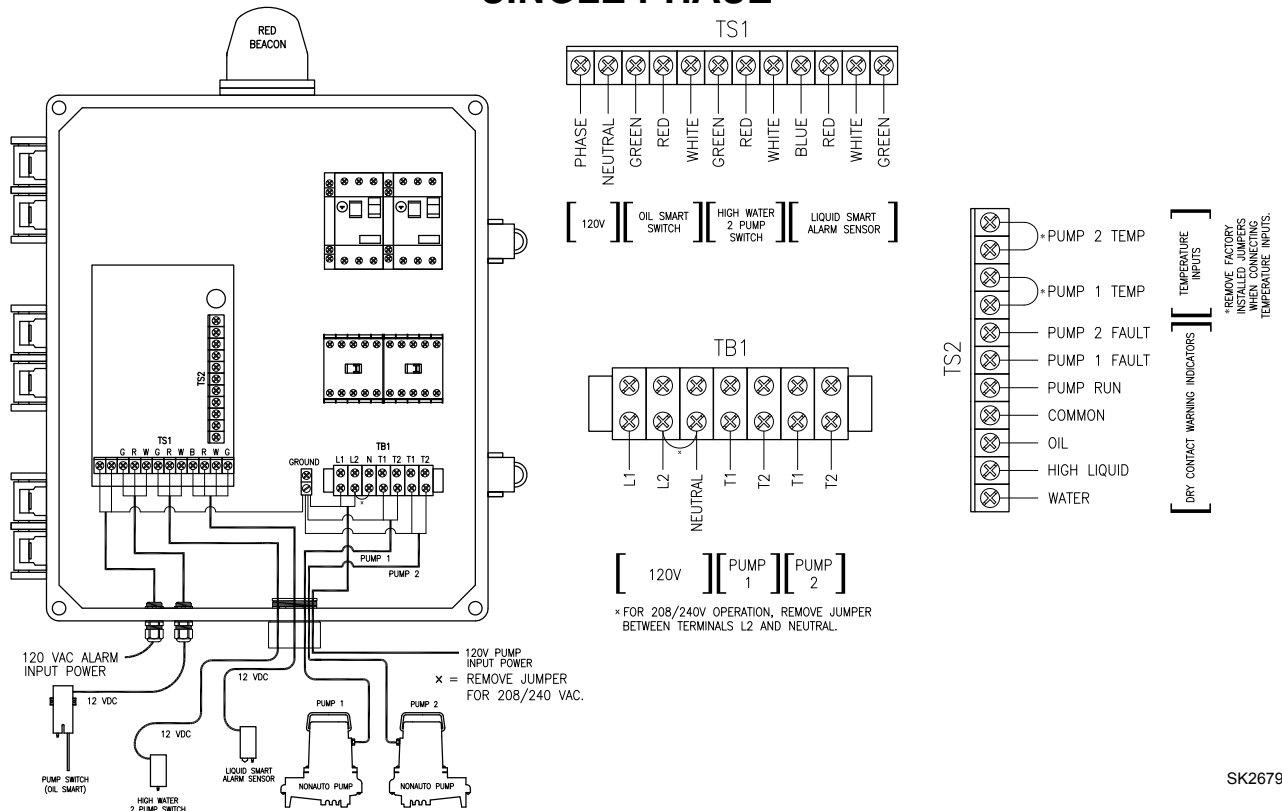
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WIRING DIAGRAM FOR SIMPLEX CONTROL PANEL WITH ALARM SINGLE PHASE



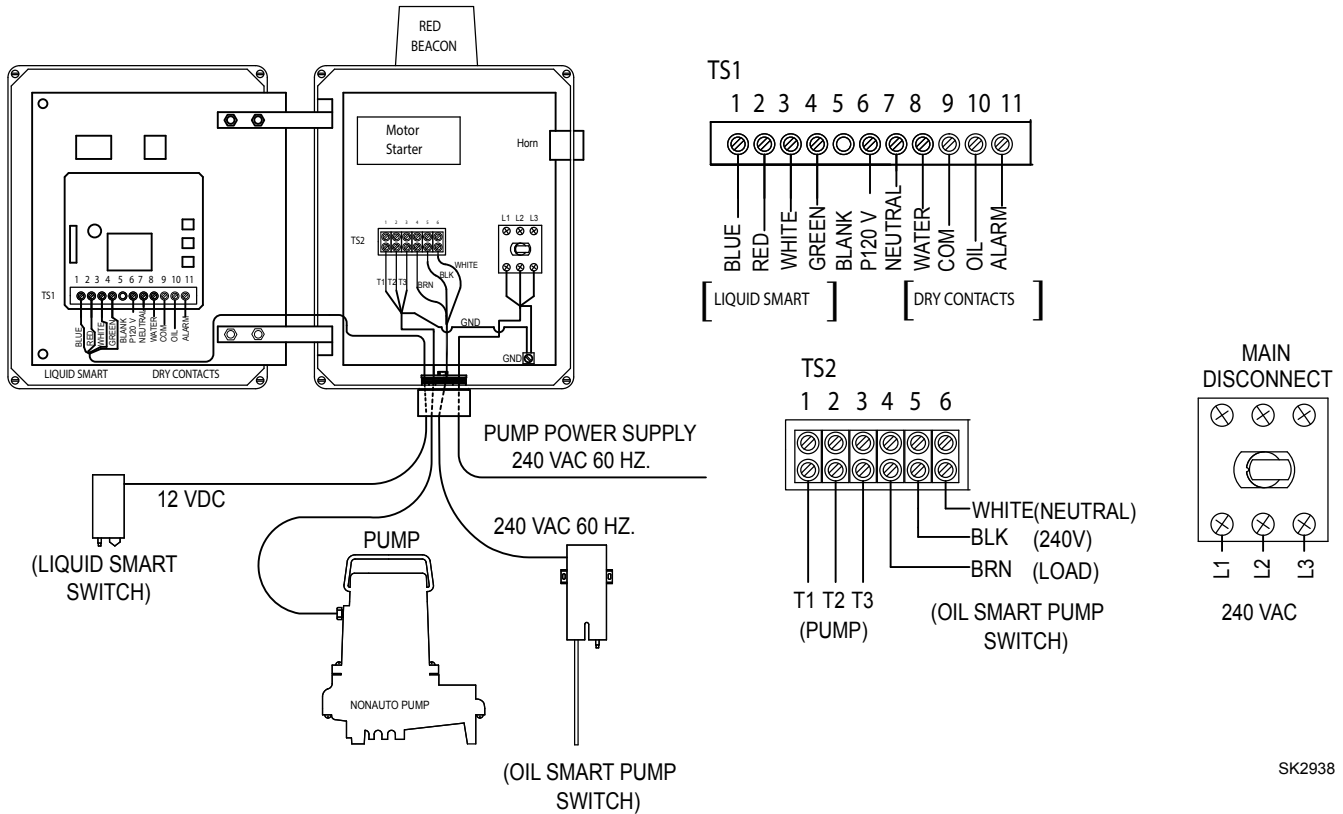
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WIRING DIAGRAM FOR DUPLEX CONTROL PANEL WITH ALARM SINGLE PHASE



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WIRING DIAGRAM FOR SIMPLEX CONTROL PANEL WITH ALARM THREE PHASE



WIRING DIAGRAM FOR DUPLEX CONTROL PANEL WITH ALARM THREE PHASE

