"*Quality Pumps Since 1939*"

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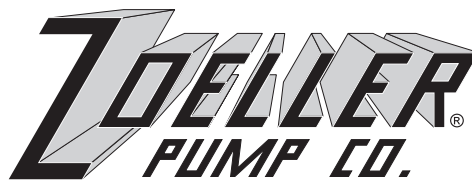
Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

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

visit our web site:
www.zoeller.com

OIL SMART® ALARM PANEL
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.

Installation Instructions for 1 1/2" pipe.
1. Review figures 1,2,3,4, and 5.
2. Attach Liquid Smart Sensor to Quick Mount Bracket using #10 screws and nuts provided (See Figure 1).
3. Snap bracket onto discharge pipe or float tree (See Figure 1).
4. Install Liquid Smart Sensor at high water level 10" above normal pump "on" level.
5. Place hose clamp on pipe under Quick Mount Bracket (See Figure 1) for reference location of the Liquid Smart Sensor.
6. For easy maintenance, snap Quick Mount Bracket assembly off and on pipe using the hose clamp as a guide.
7. Mount Liquid Smart Sensor clear of inlet water at least 1" to 2" away from any metallic material.
8. Mount Alarm Panel and connect to a separate branch GFCI circuit (See Figure 3 or 4).

Installation Instructions other than 1 1/2" pipe.
1. Use the universal PVC bracket and clamp provided.
2. Insert hose clamp through top of bracket (See Figure 2).
3. Mount liquid Smart Sensor to universal bracket using #10 screws and nuts provided.
4. Install Liquid Smart Sensor at high water level 10" above normal pump "on" level using clamp provided.
5. Mount Liquid Smart Sensor clear of inlet water at least 1" to 2" away from any metallic material.
6. Mount Alarm Panel and connect to a separate branch GFCI circuit (See Figure 3 or 4).

Installation instructions for mounting to basin wall.
Reference FM2364 or FM2104.

For remote Supervisory Control and Data Acquisition (SCADA) (See Figure 5).
TB1:
1. Water - location #8. Normally open
2. Com- location #9.
3. Oil - location #10. Normally open
4. Alarm - location #11. Normally open

Liquid Smart Sensor Operation
Liquid Smart Sensor detects high liquid levels and differentiates the presence of oil and water. Activates a red light, audible alarm and oil (yellow) or water (white) indicator light.

Alarm Mode 1 (oil present): If oil is present in the water as the level rises to the Liquid Smart Sensor, the red and yellow lights will turn on and the alarm will sound.

Alarm Mode 2 (high water): If no oil is present as the level rises to the Liquid Smart Sensor, the red and white lights will turn on and the alarm will sound.
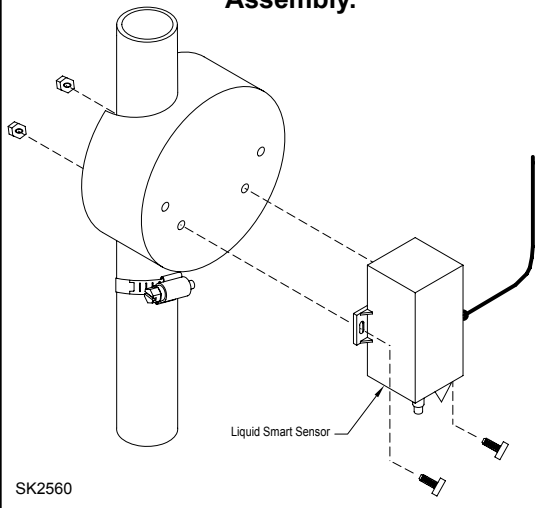
Testing Liquid Smart Sensor
A. Plug alarm panel into electrical outlet (115V).
B. Fill paper cup with water.
C. Submerge optical sensor in water (metal probe exposed to air)
D. Touch a wet paper towel or wet rag to the metal probe. Water indicator light (white), audible and alarm light will turn on. Repeat test using oil.
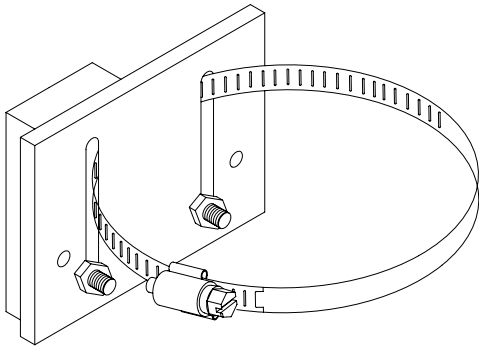
Maintenance

1. Plastic switch case and metal sensor leads must be kept clean, free of corrosion, mud, soap. Clean switch every four months or as often as environmental conditions dictate.

2. Clean with oil base product like kerosene, solvent or WD40. Do not use soap.
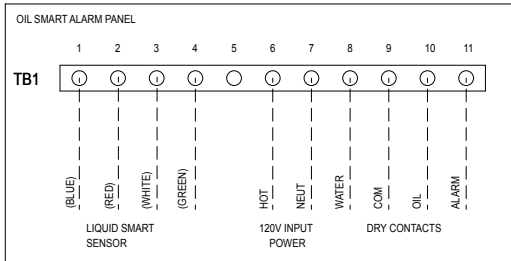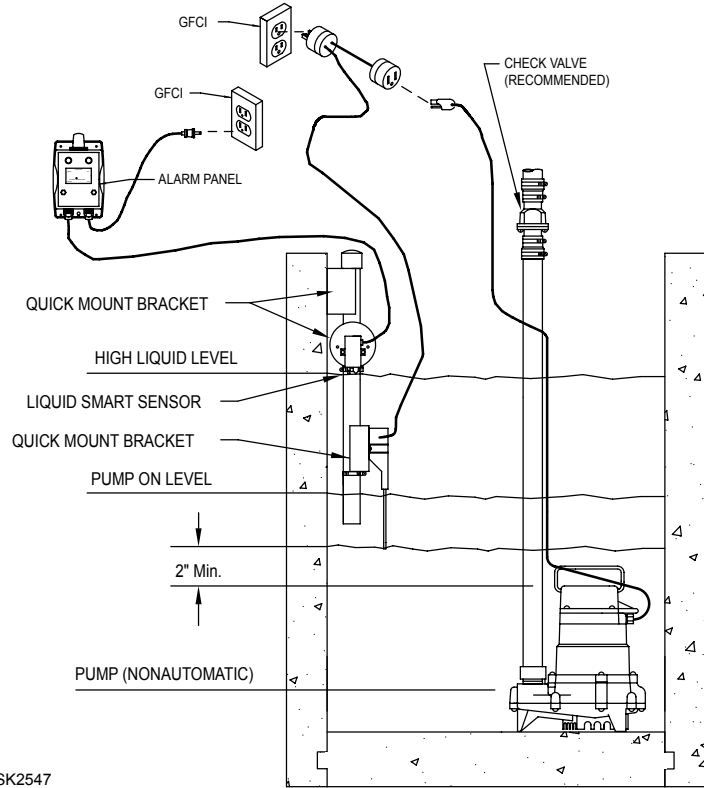
FIGURE 1 Quick Mount Bracket Assembly.

Liquid Smart Sensor

SK2560

FIGURE 2 Universal PVC Bracket

SK2386

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

GFCI

GFCI

ALARM PANEL

CHECK VALVE (RECOMMENDED)

QUICK MOUNT BRACKET

HIGH LIQUID LEVEL

LIQUID SMART SENSOR

QUICK MOUNT BRACKET

PUMP ON LEVEL

2" Min.

PUMP (NONAUTOMATIC)

SK2547

FIGURE 4 Typical Installation of Oil Smart® Pump Switch and Alarm Panel.

GFCI

GFCI

CHECK VALVE (RECOMMENDED)

ALARM PANEL

ABOVE WATER LINE

QIUCK MOUNT BRACKET

HIGH WATER LEVEL

LIQUID SMART SENSOR

QUICK MOUNT BRACKET

PUMP ON LEVEL

PUMP OFF LEVEL

2" Min.

MINIMUM PIT REQUIREMENTS 24" X 36"

PUMP (NONAUTOMATIC)

SK2546

FIGURE 5 OIL SMART® ALARM PANEL WIRING DIAGRAM

OIL SMART ALARM PANEL

TB1

1	2	3	4	5	6	7	8	9	10	11
(BLUE)	(RED)	(WHITE)	(GREEN)		HOT	NEUT	WATER	COM	OIL	ALARM

LIQUID SMART SENSOR

120V INPUT POWER

DRY CONTACTS

SK2514