

Model 4042SA/SAL™ Leak Detecting Spill Alarm w/ or w/out Light
(PN: 4042SA (without light) or PN: 4042SAL (with light))

The Model 4042SA™ Leak Detecting Spill Alarm offers spill and leak notification and meets secondary spill containment requirements of government agencies. Spill Alarm can be integrated via PLC with other equipment facilitating automatic shutdowns, lockouts, and other safety procedures.

Set up and Wiring:

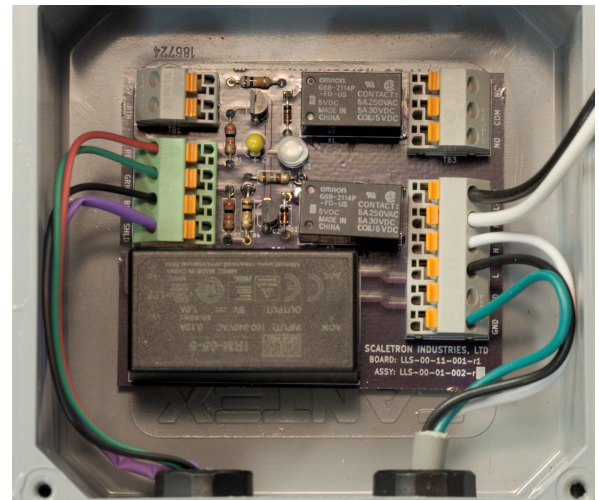
***** DO NOT PLUG-IN OR APPLY POWER YET! ***** The AC power wiring is done at the factory and field installation only requires connecting the low voltage Liquid Sensor Cable, inside the Electronics Enclosure. If you are not comfortable doing this, get a licensed electrician to perform the work.

Step 1: First locate a suitable location for the Liquid Sensor and the Electronics Enclosure. The distance between both items should be no more than 19 feet (5.8 meters) unless a custom cable length was ordered. We caution against increasing cable length by splicing longer cables. If planning to utilize the remote signaling capability of the Spill Detector, a ½ inch (12.7 mm) diameter hole will be required for the additional customer supplied signal cable. A cord grip is included inside the enclosure for this purpose. With the power cord unplugged, remove the two screws that secure the cover of the Electronics Enclosure. Inside the enclosure you will find a small bag with the cord grip and the remaining two screws for the cover. The cable grip is designed for a cable no larger than 0.25" (6.35 mm) diameter. Be careful that you do not damage any internal circuitry when drilling holes in the enclosure. After drilling the hole and installing the cord grip, replace the cover and secure with two screws while completing the installation.

Step 2: Mount the Electronics Enclosure at the desired height. We recommend the height not exceed 8 feet (2.4 meters) from the floor, because the strobe may not be as visible. The enclosure mounting holes are 0.26" (6.6 mm) diameter and the hole centers are separated by 5.39 inches (137 mm). Two 1/4" or M6 screws (not included) will be required to secure the Electronics Enclosure at the desired location. The enclosure may be mounted vertical (Strobe Out) or horizontal (Strobe Up). If mounted in a wet area or an area subject to wash-down, the enclosure **must** be mounted horizontal (Strobe Up). With the power cord unplugged, remove the two screws that secure the cover of the Electronics Enclosure. Inside the enclosure you will find a small bag with a cord grip and the remaining two screws for the cover. The cord grip is required when using the remote signaling capability of the Spill Detector. The Spill Detector is supplied with an 8 foot (2.4 meter) long three conductor AC power cable with a NEMA 5-15P Plug. If a longer power cable is required, we recommend using a licensed electrician to attach a longer power cable. The cable grip is designed for cable diameters from 0.115 to 0.25 inch (2.9 to 6.4 mm).

Step 3: Connect the Liquid Sensor Cable - The Liquid Sensor Cable is supplied with the Spill Detector. There is a 3" square block on one end of the cable and the other end is loose wires. With the cover of the Electronics Enclosure off, carefully feed the Liquid Sensor Cable wires through the cable grip until the gray cable jacket protrudes through the inside of the Cable Grip. Tighten the cable grip against the cable. Connect the wires from the end of the Liquid Sensor Cable to the four-position terminal block (TB2). Observe the colors in the image to the right. The colors from top to bottom are:

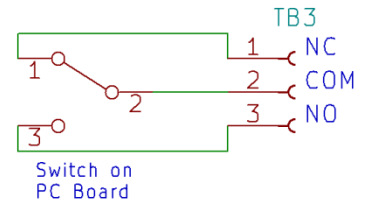
- Red
- Green
- Black
- Violet (Shield)



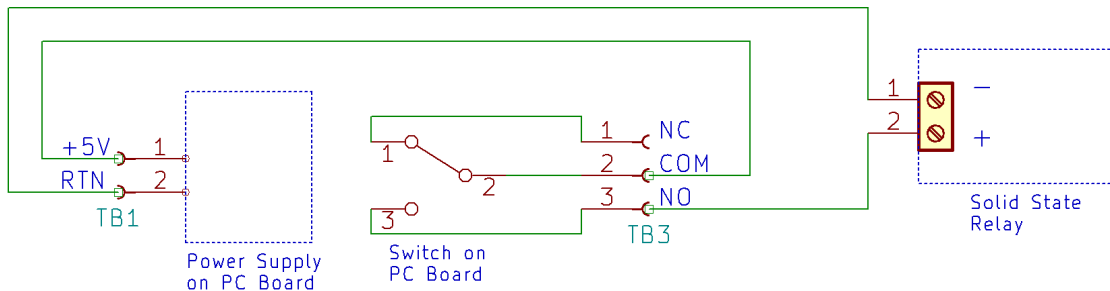
If you are planning to use the remote signaling feature, skip this next step.

Install the cover on the Spill Detector making sure the black gasket is in the proper orientation on the enclosure. Use all four screws to secure the cover to the box. Installation is now complete, and the Spill Detector is ready to use.

Step 4: Connect Remote Signaling - Using the Remote Signaling feature of the Spill Detector requires connecting wires to Terminal Block (TB3). The connections operate like a SPDT relay (Form C); the signal goes to the Common terminal and appears on the Normally Closed (NC) terminal. When a spill is detected, the signal appears on the Normally Open (NO) terminal. See the simple diagram to the right. The relay contacts are rated at 3A with resistive load and 1.5A with an inductive load. The terminal blocks will accept from 22 to 18 AWG wires. When connecting to a PLC that will handle switch closures, you simply connect Common to one PLC terminal and either NO or NC to a second PLC terminal. The Spill Detector can also supply 5 volts at up to 0.05A (50mA).



See the simple diagram below for a connection suggestion using the 5 volts to power a Solid-State Relay.



A Strain Relief is supplied (inside the enclosure) for a customer supplied signal cable. The cable grip is designed for cable diameters from 0.115 to 0.25 inch (2.9 to 6.4 mm). When the Remote signaling cable is connected, install the cover on the Spill Detector making sure the black gasket is in the proper orientation on the enclosure. Use all four screws to secure the cover to the box. Installation is now complete, and the Spill Detector is ready to use.

Plug the power cable into a suitable outlet.

Step 5: If connecting to our AccuPro 5000™ Controller, please refer to Step 6 of the AccuPro 5000™ Measurement System Quick Start Guide.