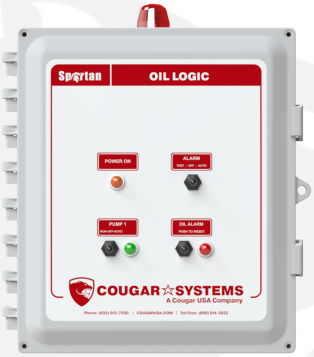
COUGAR☆SYSTEMS
A Cougar USA Company

Quick Start Guide

SPARTAN SERIES 85
OIL LOGIC SUMP PUMP CONTROLLER



SAFETY INSTRUCTIONS

Electrical connections are to be made by a qualified electrician in accordance with the National Electrical Code (NEC) or the Canadian Electrical Code, as well all national, state and local codes. Code questions should be directed to your local electrical inspector. Failure to follow electrical codes and OSHA safety standards may result in personal injury or equipment damage. Failure to follow manufacturer's installation instructions may result in electrical shock, fire hazard, personal injury or death, damaged equipment, provide unsatisfactory performance, and may void the manufacturer's warranty.

Read this manual carefully to learn how to safely install and operate your pump. Throughout this manual there are a number of SAFETY HAZARDS that must be read and adhered to in order to prevent possible personal injury and/or damage to the equipment.

Three keywords, "DANGER" ,"WARNING", and "CAUTION", are used to indicate the potential severity of the hazard, and are preceded by a SAFETY ALERT SYMBOL. Failure to follow the safety-related instructions may result in a safety hazard.

DANGER Indicates an imminently hazardous situation which, if not avoided, *WILL* result in serious injury or death.

WARNING Indicates a potentially hazardous situation which, if not avoided, *COULD* result in serious injury or death.

CAUTION Indicates a potentially hazardous situation which, if not avoided, *MAY* result in minor or moderate injury.

THOROUGHLY REVIEW ALL INSTRUCTIONS AND WARNINGS PRIOR TO PERFORMING ANY WORK ON THIS PUMP.

INSTALLATION

General

The Spartan Series 85 Oil Logic Sump Panel is designed to operate with the Cougar FSP315 Sensor

Installation of Sensor

1. Determine the normal operating levels for the sump pit.
2. Mount the sensor float at the pit level the pump should start.
3. The float can not be installed less then 1' above the pump suction.
4. Sensor electrodes 3 & 4 must be above pump suction.

Mounting the Control Panel

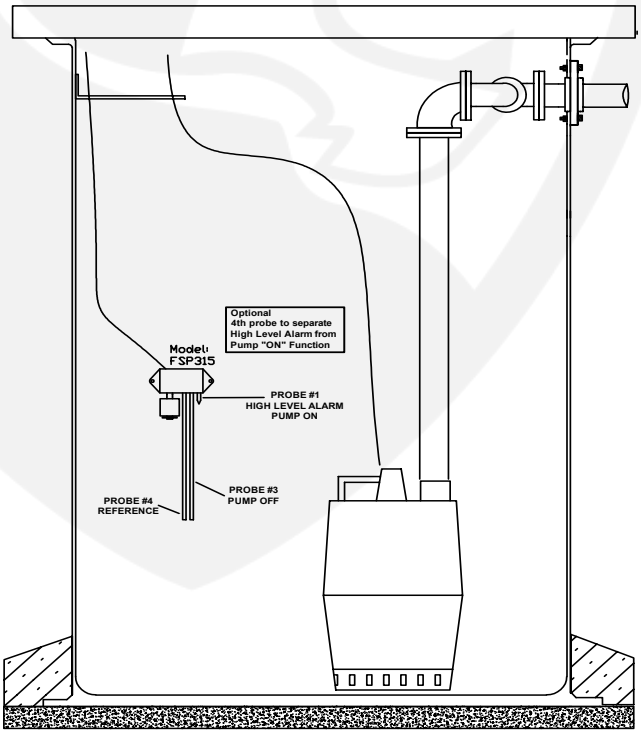
1. Determine a mounting location for the panel. If the distance exceeds the length of the float switch cables or motor leads splicing will be required. The splicing of the cables should be made in a liquid-tight junction box that is installed above the sump pit. It is not recommended to make splices in the sump pit due to the potential for a flooded condition.
2. Mount the panel with the mounting feet included.
3. Determine the conduit locations on the panel.

Note: Do not make connections into the top of the panel enclosure. Doing so will void the panel warranty.

4. Drill the proper size holes for the type of connectors being used.
5. Attach cable connectors and/or conduit connectors to control panel.

6. Connect the pump and sensor wires to the proper terminals in the panel per the wiring diagram and or the terminal block label installed in the panel.
7. Connect the power feed to the proper terminals per the terminal block label installed in the panel.

Note: Be sure the incoming power, voltage, amperage and phase meet the requirements of the pump motor that is installed. See the pump nameplate



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Operations

Pumping and Water Alarm– Water will rise and submerge the (2) long S.S.Probes, once the water level reaches the Third Probe, short & pointed, the "Water Present" alarm will sound and the pump will run. The Pump will stop and the "Water Present" alarm will clear once the levelfalls below the (2) long S.S. Probes.

Oil Alarm–If the Float switch is lifted for 2-5 seconds and no conductivity is sensed between the three Pumping and Water Alarm probes, then an "Oil Present" alarm will sound. (The short pointed probe is calibrated to the level of the float switch activation point. The combination of the float rising and the presence of a conductive fluid, or not,is what produces the Oil alarm). This alarm has a manual reset. If the non-conductive level falls off the float switch the Oil alarm will continue to be active until someone presses the "Oil Reset".

The Oil alarm does not prevent the operation of the pump or the "Water Present" alarm indication. If the level continues to increase and the Oil layer is pierced, once the pointed probe makes contact with water it will alarm "Water Present" and operate the pump.

PANEL COMPONENTS

1. Alarm Beacon
2. TYPE 4X Enclosure
3. Power On Indicator
4. Pump Run Indicator
5. Pump Selector switch
6. Alarm Selector switch
7. Control Relay
8. Terminal Strip
9. Main Disconnect
10. Alarm Horn
11. Pump Contactor
12. Motor Starter Combo Circuit Breaker/Overload (3Phase Only)
13. Oil Present Alarm indicator
14. Control Transformer (3Phase Only)
15. Oil Present Reset button
16. High Water alarm indicator
17. Conductivity Relays

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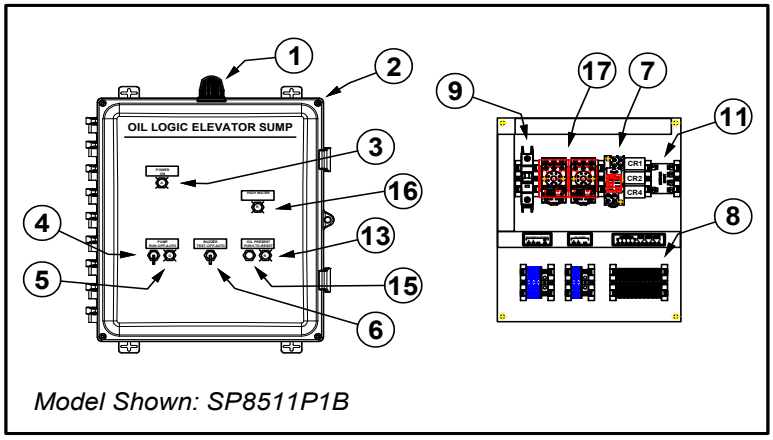

Model Shown: SP8511P1B

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