

ROM III Onboard Monitor – Non I.S. Relay Uses

02-14-002PB

The below wiring details explain the more typical uses of the ROM III's Non Intrinsically Safe Solid-State Relay Output. In **ALL** of the below cases, the additional equipment shown **MUST** be located in an area on the tanker classified as **non-hazardous**. This equipment **MUST** also be mounted in a weather protected sealed housing or otherwise protected from direct exposure to the elements.

1.0 HOT-SHIFT PTO APPLICATION

The wiring detail below shows implementation of on-board shutdown of the tanker's air-operated "hot-shift" PTO. The solenoid operated valve will energize to enable the PTO to operate when the ROM III is in a permissive state (PERMIT) LED Lit. When the ROM III is non-permissive, the solenoid operated air valve will block air flow to, and exhaust the PTO's air shift engagement.

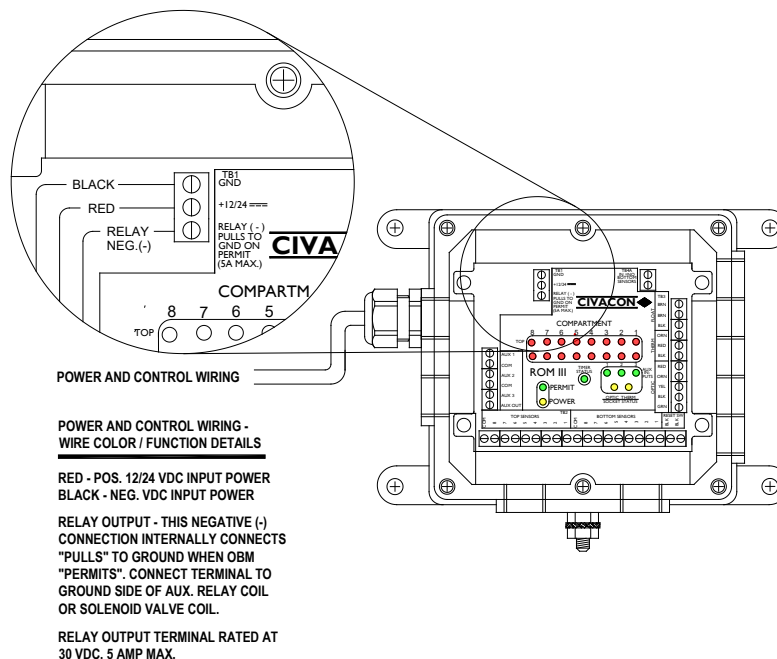
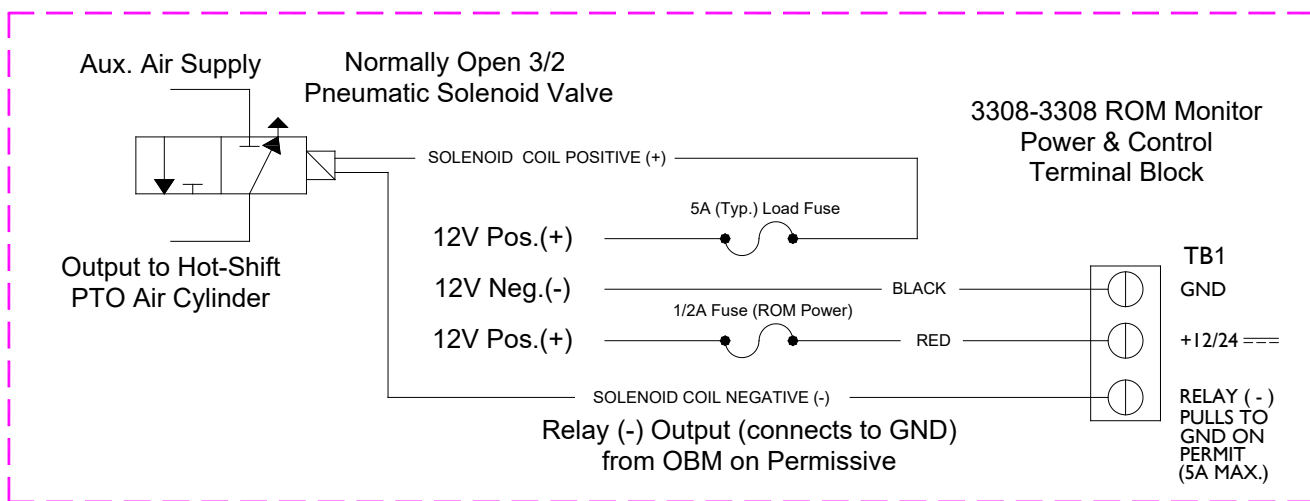


FIGURE 1 – HOT-SHIFT PTO APPLICATION

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2.0 HYDRAULIC PUMP MOTOR – BYPASS LOOP APPLICATION

The wiring detail below shows implementation of on-board stopping of the tanker's hydraulically operated pump motor by creating a "bypass loop" for the hydraulic fluid to flow through, rather than driving the pump motor. The solenoid operated hydraulic valve will energize to enable the pump motor to operate the liquid pump when the ROM III is in a permissive state (PERMIT) LED Lit. When the ROM III is non-permissive, the "bypass loop" will be open (hydraulic fluid flowing through this loop).

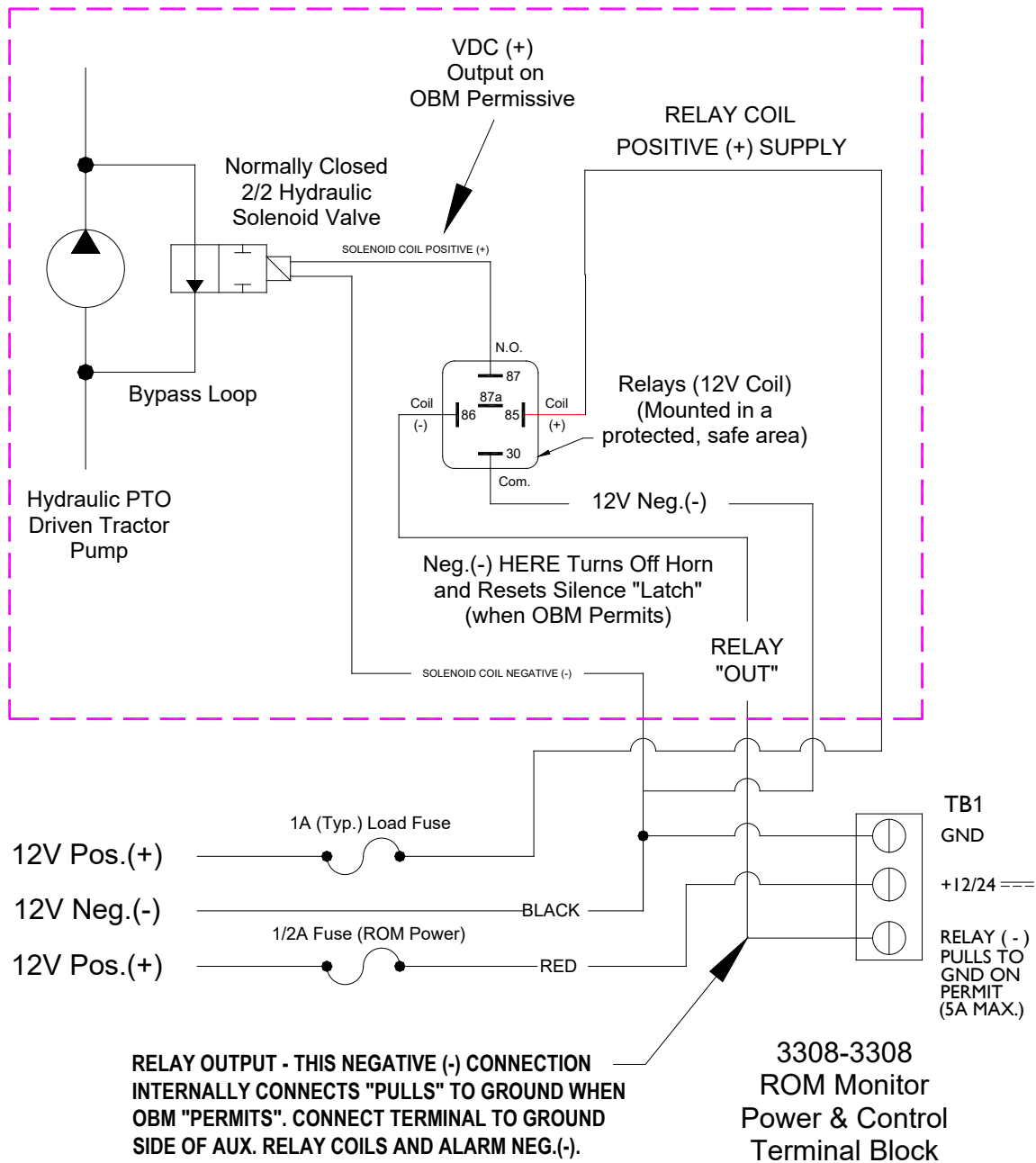


FIGURE 2 – HYDRAULIC PUMP MOTOR – BYPASS LOOP APPLICATION

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3.0 ALARM OUTPUT WITH SILENCE PUSHBUTTON APPLICATION

The wiring detail below shows implementation of AN on-board “alarm”, which will sound when the onboard monitor goes “non-permissive”; indicating one of the tanker’s sensors has become wet. This “alarm condition” will NOT automatically stop flow in any way! It will ONLY serve to alert the tanker operator to take whatever appropriate action is needed to prevent an overflow of the tanker.

The alarm with sound, when the ROM III changes to a non-permissive state, and will continue to sound until the momentary “silence pushbutton” is pressed. This will latch the alarm into a “silent mode”. This silent mode will automatically be cancelled when the ROM III again re-permits. Thus, enabling the automatic ‘alarm on non-permissive state’ again.

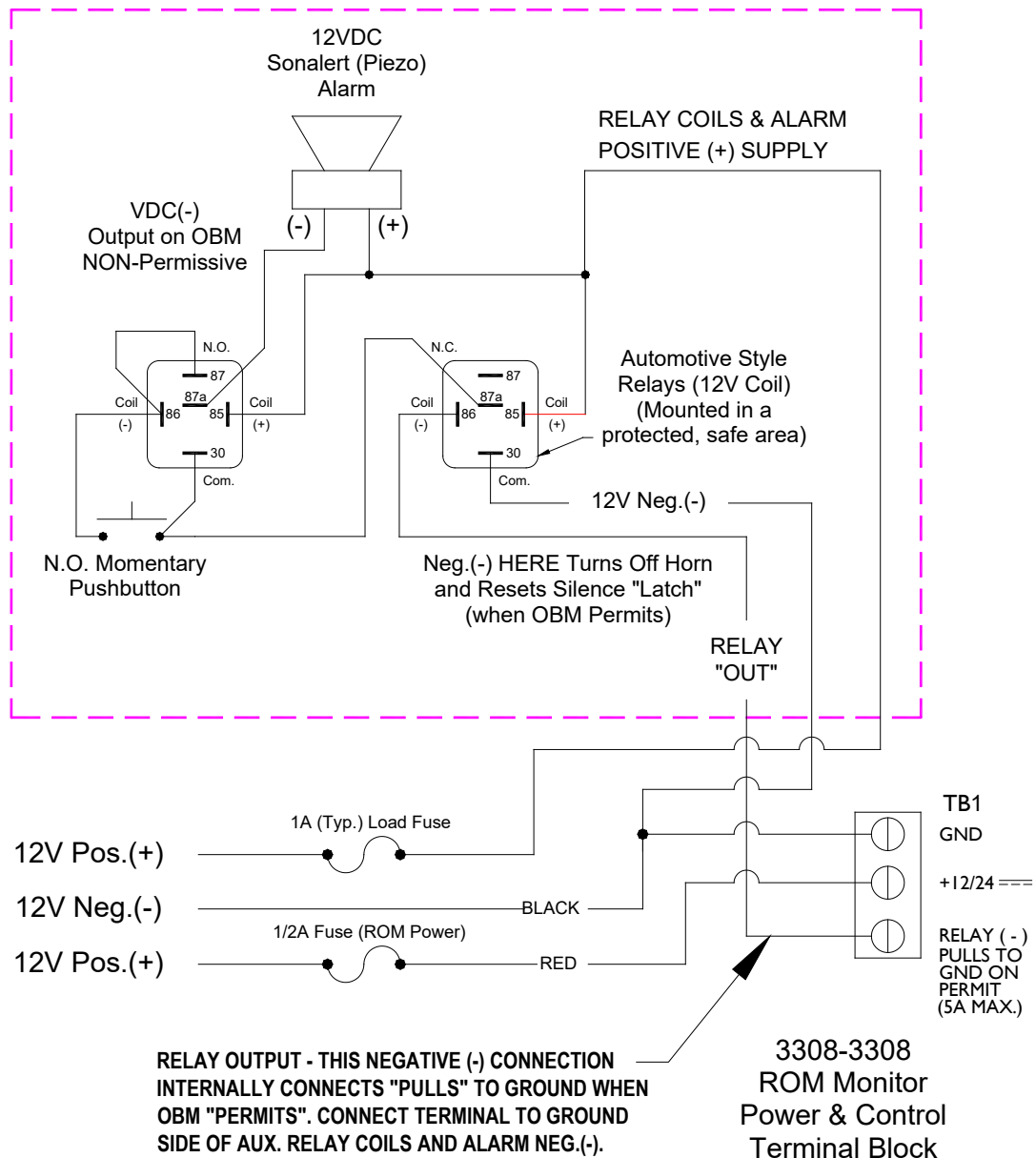


FIGURE 3 – ALARM OUTPUT WITH SILENCE PUSHBUTTON APPLICATION