FILE: 091-158 DATE: 10-12-04

#### **INSTRUCTION MANUAL**

# LOGIC MODULE 3 INPUT AND/OR



MODEL# 091-158

POWER INPUT: +12 volts DC LOGIC INPUT: +12 volts DC or Ground

3 YEAR WARRANTY

#### INTRODUCTION

The 091-158 is a logic module that permits switching on a load when certain other circuits are energized. Complete isolation between circuits is maintained. Two separate logic modes are available and programmed by switches on the circuit board.

"AND" Logic: In this mode an output is obtained when there is an input at INPUT 1 and INPUT 2 and INPUT 3. All three inputs must be present in order to obtain an output

"OR" Logic: In this mode an output is obtained when there is an input at INPUT 1 **or** INPUT 2 **or** INPUT 3. Any input present will create an output.

Input Signal Polarity: An input signal polarity selector switch permits operating with inputs that are either a +12 volt or they may be a connection to ground.

Output Signal Polarity: An output signal polarity selector switch permits selecting whether the output should be +12 volts or a connection to ground.

#### **CAUTION**

The output load, either +12 volts or ground Must not exceed 2 amperes

#### INSTALLATION

Mount the logic module in a dry location away from any sources of heat. Figure 1 illustrates the wiring required. The +12 volts and Ground input are required to supply the output of the logic module. Note that the input signal may be either a +12 volts or Ground. The polarity of the input signal is independent of the polarity of the output. A separate selector switch is provided to select the polarity of the output. **NOTE: DO NOT EXCEED AN OUTPUT LOAD OF 2 AMPERES.** 

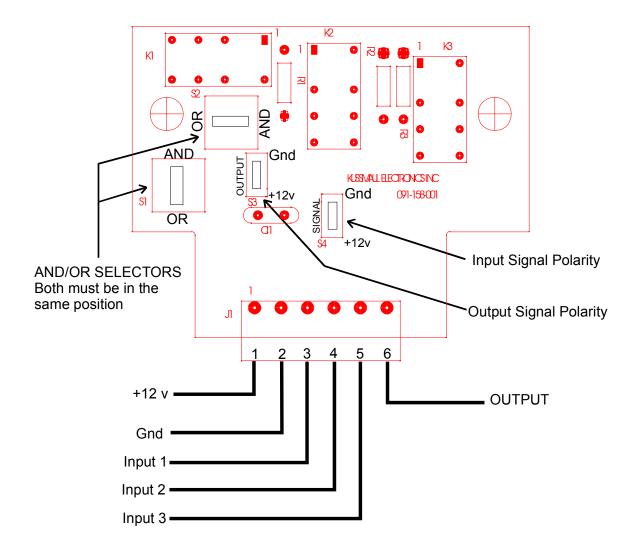
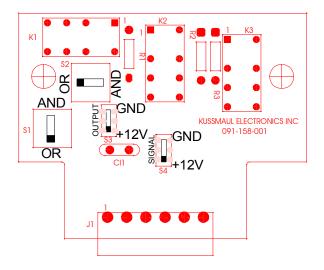


FIGURE 1

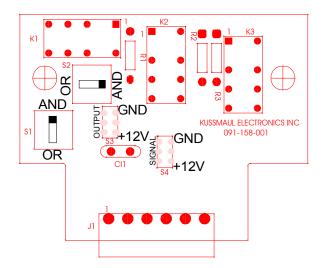
## **LOGIC PROGRAMMING**

Figures 2 and 3 illustrate the switch positions for programming the "AND" and the "OR" function.



Programming Switch Positions 3 Input "OR" Logic Positive Signal Input Positive Signal Output

Figure 2



Programming Switch Positions 3 Input "AND" Logic Positive Signal Input Positive Signal Output

Figure 3

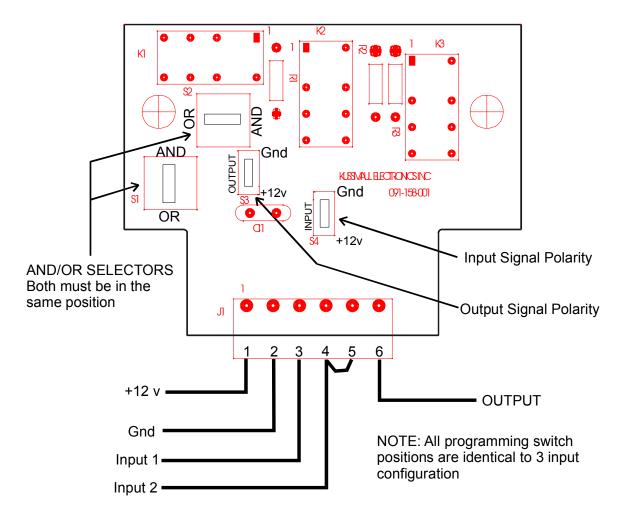
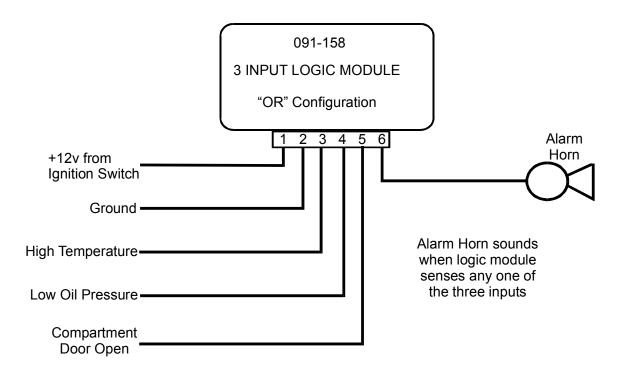
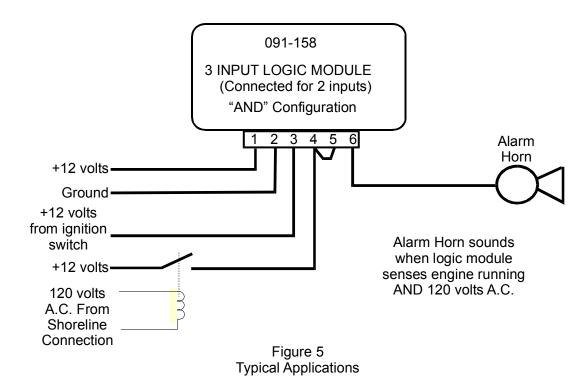


FIGURE 4
INSTALLATION WIRING FOR USE WITH ONLY 2 INPUT SIGNALS



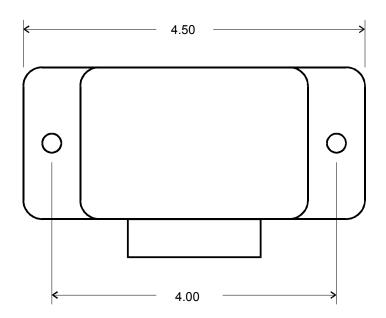


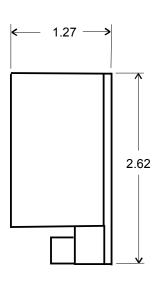
# SPECIFICATION AND OUTLINE

Power Input: +12 volts D.C., at 2 amperes max.

Output: 2 amperes max.

Signal Input: Each input, 12 volts at 0.04 amperes





#### **INSTALLATION RECORD & WARRANTY**

Date Installed	
Installed By	
Vehicle Identification	
Vehicle Owner	

### WARRANTY

All products of Kussmaul Electronics Company Inc. are warranted to be free of defects of material or workmanship. Liability is limited to repairing or replacing at our factory, without charge, any material or defects which become apparent in normal use within 3 years from the date the equipment was shipped. Equipment is to be returned, shipping charges prepaid and will be returned, after repair, shipping charges paid.

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