



Stoplight Manual Rev 2.1

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ELECTRONIC DISPLAYS



There are 4 options for controlling the stop and go light.

Options 1, 2, and 3 use jumper J51 to select the desired voltage used by the switches (switches can be interchanged with photoeyes or other relays). When a simple closed contact switch is used, either 5 volts or 12 volts is acceptable. Select 5 volts for TTL systems or 5 volt relays. Select 12 volts for 12 volt relays or photoeyes.

Option 1: Single Switch

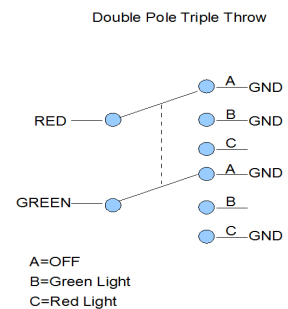
Set Blue jumper on JP5 to 1 Switch

Connect any closed contact switch (SPST) between GREEN and GND on J2. Light is Green when switch is open and red when switch is closed (reversed when invert jumper is selected)

Option 2: Dual Switches

Set Blue jumper on JP5 to 2 Switches

Connect two SPST switches or a DPTT(DP3T) switch between GREEN, GND and RED on J2. Lights are normally on. When contact is made between GND and GREEN the green light turns off. When contact is made between GND and RED the red light turns off. When Invert jumper is on lights are normally off and any GND connection turns the corresponding light on.



Option 3: Proximity Detector

Set Blue jumper on JP5 to Proximity. Switches are typically 12 volt photoeyes

When 2 normally open switches are open (or 2 normally closed switches are closed when the invert jumper is selected) the GREEN light is on

When one switch is open and the other is closed the RED light is on

When 2 normally open switches are closed (or 2 normally closed switches are open when the invert jumper is selected) the RED light flashes. Flashing speed is based upon the lower 4 jumper selections on JP5. For example the jumper selection of [2400] 3/4 sec) will cause the green light to remain on for 3/4 of a second and then off for 3/4 of a second, then repeat every 1.5 seconds as long as both switches remain in the same state.



Option 4: Serial Data

Set Blue jumper on JP5 to RS232/422/485 or to CLOOP depending on desired input
Set Blue jumper on JP5 to desired baud rate 1200, 2400, 4800, or 9600.

Wiring

RS232

Transmitting Device		SG
TXD	---	RXD
GND	---	GND

RS422/485

Transmitting Device		SG
422A(+)	---	RX422A
422B(-)	---	RX422B

Current Loop

Transmitting Device		SG
+20 mA	---	CL(+)
-20 mA	---	CL(-)

The lights are controlled by 1 of 4 ASCII characters. If the character is anywhere in the data stream the corresponding lights turn on/off, the lights will remain in that state until one of the other 3 characters is received.

ASCII "R" 0x52 turns the red light on and the green light off.

ASCII "G" 0x47 turns the green light on and the red light off.*

ASCII "O" 0x4F turns both lights off.

ASCII "B" 0x42 turns both lights on.

*Note if a continuous data stream contains a "G" for gross the light will always be green.

Mounting Dimensions

The mounting bracket has four holes for ¼ inch bolts. Mounting holes are 4 inches apart in width and 3 inches apart in height.