

## 3 Aspect Signals - Toggle Switch Control

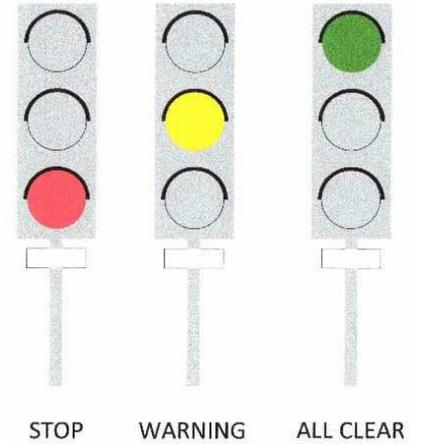
### SW313 Mini Toggle Switch

Controlling these on a Model Rail layout can be done with a Toggle Switch. Rotary switch, or automatically with magnetic switches. This Project describes how to use a toggle switch to control the 3 aspect lights on a layout.

The 3 aspect signal is Green, Yellow, & Red. Green at the top means 'All Clear' Yellow in the middle means 'Warning - next signal could be Red', and the Red means 'Stop',

Using a toggle switch requires the switch to have three 'ON' position and three lever positions. This is achieved with or SW313 switch. The terminals on the base of the switch are numbered 1 to 6. Please follow these numbers on the drawing carefully as the sequence of wiring is important.

The first thing to do is to ensure the Keyway is to the top of this diagram Then put a link between terminal 3 and terminal 5 as shown.

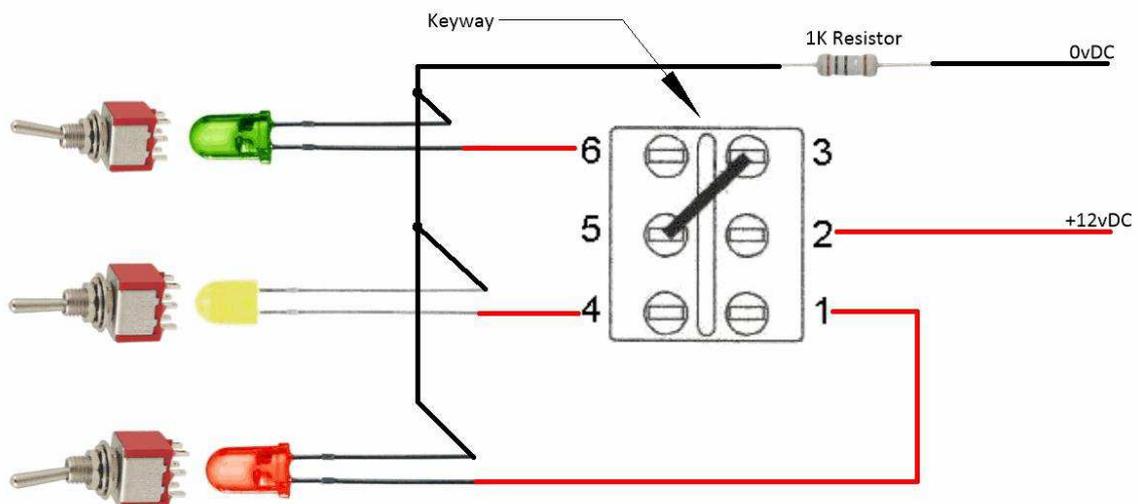


Now ensure that the Keyway is at the top as the drawing, then the numbering will be correct.

Start by connecting the Green LED to terminal 6 on the switch (Long lead on the LED), the Yellow LED to terminal 5, and Red to terminal 1. The short leads from the LED's are joined together and then connected to a 1K resistor before connecting to the negative supply.

Now connect 12v DC supply to terminal 2. Your switch is now ready.

(Note: If you are using filament bulbs such as Wheat Germ or LES or MES bulbs you do not require the Dropping resistor)



Please note that this DP3T (Double Pole Triple Throw) has a special configuration on the inside of the switch (SW313), a normal DPDT will not work, even though they look the same.

Due to the link between 3 & 5 it is advisable to use Heatshrink sleeving on the connecting wires, just to protect against short circuits.