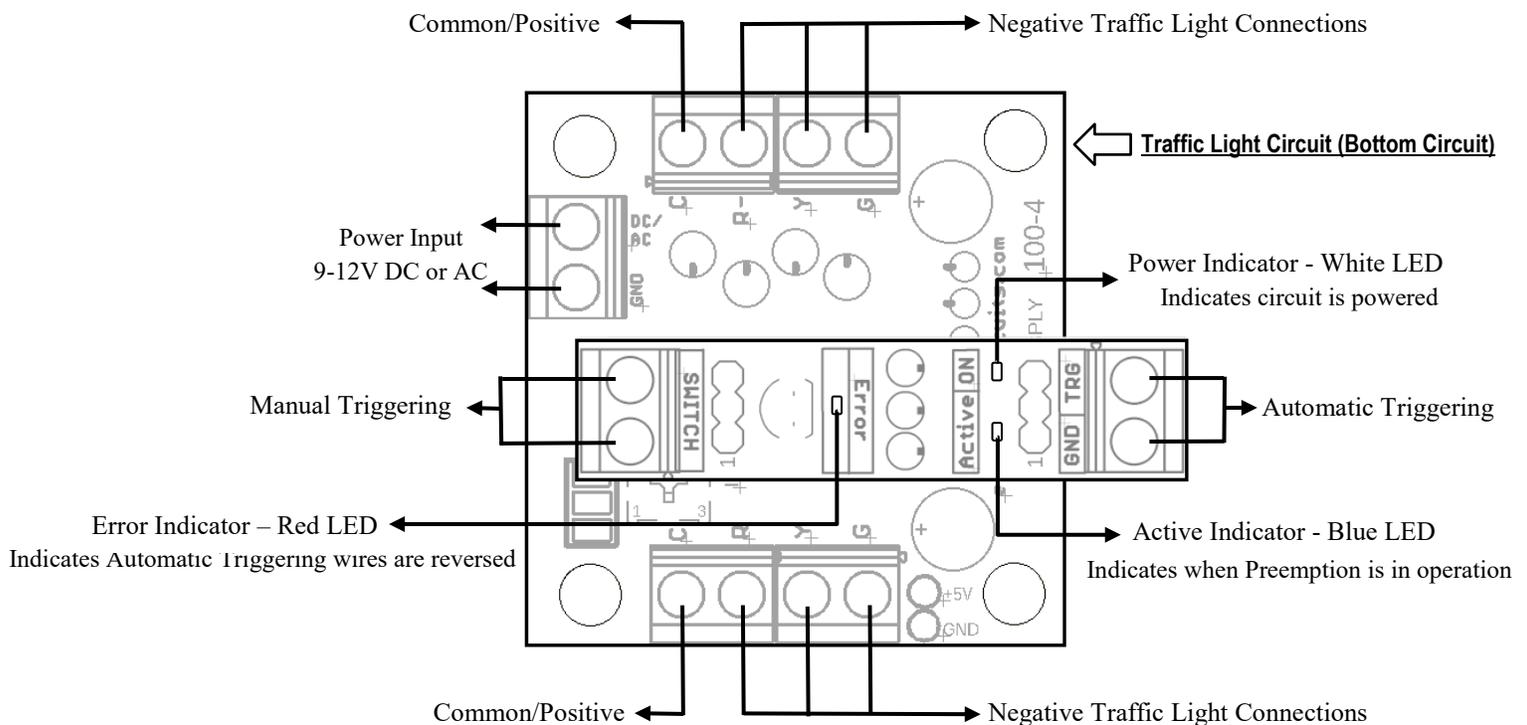


Traffic Light Preemption Circuit System (#203)

Instructions

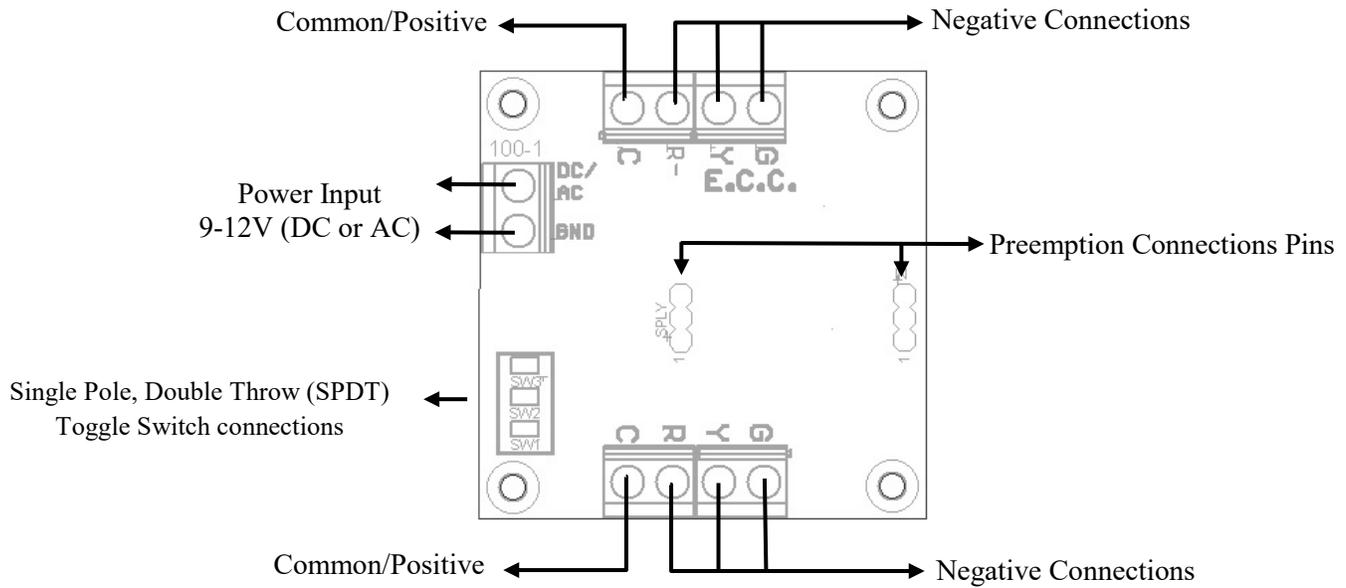
Getting Started

Thank you for purchasing the ECC Preemption System. Please take a moment to read and familiarize yourself with the following instructions prior to installing this circuit. This kit contains one Traffic Light circuit and One Preemption circuit. The Traffic Light Preemption Circuit primary purpose is to override the traffic light circuits' normal operation and the connected traffic lights to go to red on all directions and stay red while a railroad crossing is in operation. This circuit can also be used for fire house entrances/exits and can be operated both automatic and manual via an **SPST ON-OFF** toggle switch. For automatic Operation a Crossing Signal Circuit #501 (Sold Separately) is required.



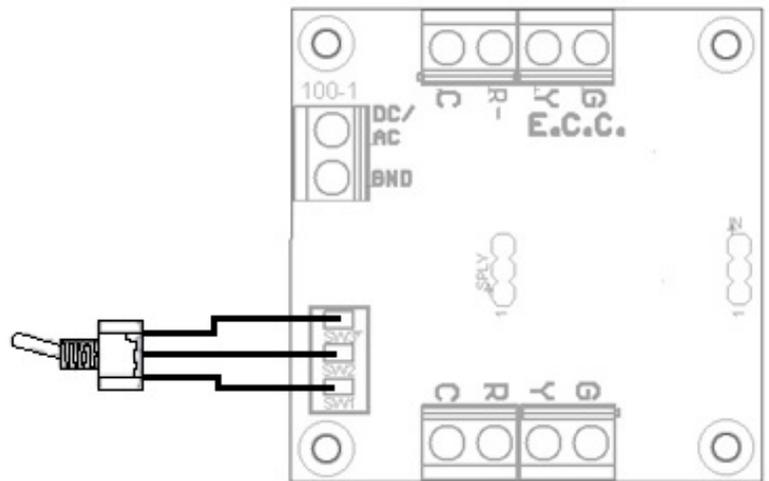
Traffic Light Circuit Wiring

The Traffic Light operates as described next. Terminals **R**, **R-**, **Y** and **G** illustrate the wire connections for the negative or colors wire leads from your traffic light. **R** and **R-** (**Red**), **Y** (**Yellow**) & **G-** (**Green**). Terminals **C** illustrates the **Common** or **Positive**. The Traffic Light 1.0 is able to handle 4 single lane traffic lights, 2 double sided and 2 four sided traffic lights such as the Walther Cornerstone Series Traffic Lights. Multiple traffic lights can be connected using the same output terminals. You should make all connections to the circuit prior to applying power.



Additional Feature

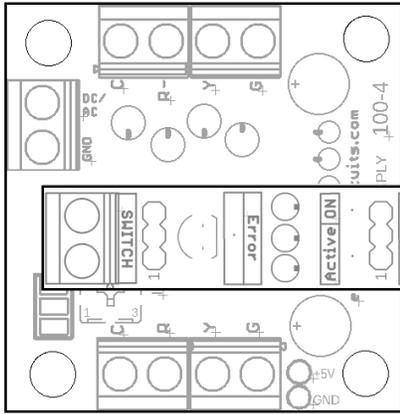
The Traffic Light circuit is equipped with a night time operation sequence or caution and stop which consist of having the yellow and red lights flash. This sequence is usually used at night for intersections with low traffic volume. The road with minor movement (less traffic) gets the Red flashing light and the road with the major movement (more traffic) gets the yellow flashing light. It's also ideal for fire house entrances/exits. For this feature to be triggered a Single Pole Double Throw (SPDT) or ON/ON Switch is required. Solder the outer switch connectors to the outer solder pads on the circuit labeled SW1 and SW3 and the center switch connector to the center solder pad on the circuit labeled SW2. If your circuit is equipped with a jumper wire please cut or de-solder the jumper wire before soldering the switch. Once the switch is installed you will be able to select between normal operation and caution and stop features.



Automatic Triggering

Automatic triggering is very simple. If you're using an ECC Crossing Circuit, connect the "TRG" terminals from the Crossing Circuit to the "TRG" terminals on the Preemption and proceed to do the same with the "GND" terminals using the provided wires. You can always add more wire if the included leads are not long enough. If you're using a 3rd party circuit make sure the circuit has a non-flashing output that can supply 5V to 12V DC. If your 3rd party circuit is equipped with a non-flashing output, connect the positive wire from such circuit to the "TRG" terminals on the preemption and the negative or ground to the "GND" terminals. **If you receive the Red "Error" LED this indicates the wire polarity is reversed.** Don't worry, just flip the wires and try again, no harm will be caused to the circuit.

Traffic Light Preemption Circuit



Crossing Signal Circuit

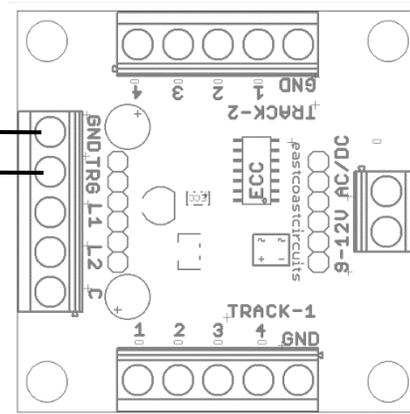
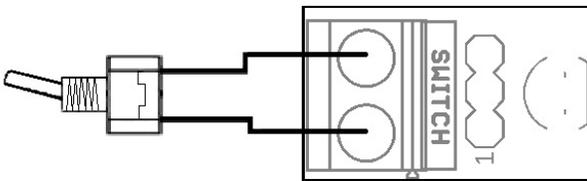


Image: Automatic Triggering Wiring Connections

Manual Triggering



Manual Triggering allows the preemption to be activated as the user pleases. This function is perfect for firehouse entrances/ exits. If you wish to use this function we recommend using the “Caution and Stop” function on the traffic Light Circuit (see Traffic Light instructions for more details)

Allowing manual triggering is very simple. Using an **ON-OFF (SPST) Single Pole Single Throw Toggle Switch (Sold Separately)** connect the leads to the “Switch” labeled terminals. Don’t worry, polarity is not important. Once the switch is flipped to the “ON” position the preemption will be activated sending the traffic lights to Red and keeping them red until the switch is flipped to the “OFF” position.

Connections

The Preemption circuit receives its power from the Traffic Light circuit via the male and female pin connectors therefore it doesn’t need any direct power supply. For the Preemption circuit to operate please make sure the circuits’ male and female pins are aligned and plugged in all the way. A good indicator is the “ON” LED which indicates the circuit is receiving power, this LED will only turn on if the circuit is plugged-in to the Traffic Light Circuit correctly. If the LED doesn’t turn on disconnect the preemption, flip 180 degrees, plug it and the white LED shall turn on. Don’t worry, no harm to the circuit will occur if it’s connected in the wrong direction.

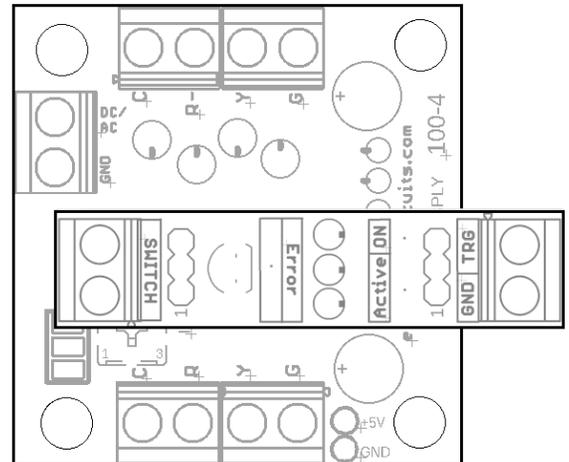


Image: Preemption Circuit Orientation

Power & Mounting

The Traffic Light Preemption Circuit System accepts **9V- 12V AC or DC ONLY**. **Please do not forget the preemption circuit receives its power from the traffic light circuit therefore the power should be connected to the Traffic Light Circuit (bottom circuit)**. The Circuit will draw approximately 26mA under load. You should make all connections to the circuit prior to applying power. You can mount this circuit anywhere. **We suggest mounting the circuit under the layout using #4 screws and adding a small piece (1/2" minimum) plastic tubing for the screws.** The spacing will keep the circuit off the actual mounting surface. The circuit is equipped with holes for easy mounting. Do not enlarge the holes as doing so can cause damage to the circuit and will void your warranty.

Warranty

This Circuit is warranted to be free from defects in workmanship and materials for a period of ninety (90) days from the date of purchase. This warranty covers all defects experienced during normal operation with the exception of the following conditions:

1. If current or voltage limitations have been exceeded
2. If product has been modified in any way (e.g. Missing/Additional Components, Soldering)
3. If product has been mishandled or abused.

Requests for warranty service must contact us first to receive a RMA (Return Merchandize Authorization) at eastcoastcircuits@gmail.com. In addition, please include a written description of the issue and original receipt

Support

We hope the foregoing instructions are adequate for answering any questions you might have about the installation and operation of this circuit. However, if you still have any questions or problems with your circuit, technical support is available through email at eastcoastcircuits@gmail.com.

Warning:

This product is not a toy. Keep away from children. It is not suitable for children under the age of 14, as small parts and/or broken parts may present a choking hazard. If swallowed, seek immediate medical help.

This product contains known Chemicals which are known to the state of CA to cause cancer, birth defects, or other reproductive harm.