**Multi-mode Flasher relay with timeout. (Type A)**

**Multi-mode Flasher** relay is a replacement for you motorcycle flasher relay adding attractive visual affects to turns signal light ranging from standard to modulated sequences.

**Multi-mode Flasher** relay works with both incandescent and LED lights, so it can also be used to stabilize blinking rate when you go from standard bulbs to LEDs. Flasher is easy to connect. It will replace two or three wire standard blinker relays.

**Multi-mode Flasher** relay features unique Timeout function. Set the timeout function and the turn signal will automatically stop blinking after a period of time. There are eight different timeout periods to choose from. Optionally flasher can be connected to the brake light wire to disable timeout while brakes are engaged.

<table>
<thead>
<tr>
<th>Voltage range:</th>
<th>6v-12v</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max current:</td>
<td>5amp (60Watt bulbs or any LEDs)</td>
</tr>
<tr>
<td>Blink patterns:</td>
<td>8 x 5</td>
</tr>
<tr>
<td>Timeout selection:</td>
<td>5, 10, 15, 20 seconds or 1, 2, 3, 4 minutes</td>
</tr>
</tbody>
</table>

*** For up to date installation instructions and videos visit www.bit.ly/turn20

Please read the entire manual before connecting and configuring Multi-mode flasher.
Above is a common connection for motorcycle turn signal relay. Turn signal relay will either have two wires (connecting to ignition power source and turns signal switch) or three wires, where the third wire is connected to the ground.

- US motorcycles - do not have 4way flashing function so the turns signal relay connection is pretty standard as shown above.
- European motorcycles - have 4way flashing feature, so the turns signal switch allows signal from the relay routed to both left and right side lights. In some cases there is an additional constant power supply wire connected to the turn signal relay to facilitate 4way flashing even when ignition is off. In this case contact our support so we can determine how the flasher can be connected to your motorcycle. Please provide your motorcycle wiring diagram.
Replacing existing turn signal relay with the multi-mode flasher is relatively simple.

1. Locate existing turn signal relay.

2. Identify turns signal relay harness wires.

3. Connect multi-mode flasher relay as show on the picture below FIGURE 2. Connect Red wire to the power source (switching +12v), Yellow wire to the turn signal switch and Black wire to the ground.

4. Connect provided high resistance resistors to the left and right lights. Connect resistor parallel to the either front or real light. Resistors are not needed if one of the bulbs is incandescent type.

5. White and Green wires are configuration wires and should be connected to the buttons. Buttons then should be connected to the ground.

6. Connect provided resistor to button #2 and tap into brake light wire as show on FIGURE 3. This will allow flasher to identify when brake is engaged to temporary disable timeout. Timeout will not be disabled during the brake operation if the wire is not connected to brake light wire.
Total load requirements.

Multi-mode mode flasher can also be used with incandescent bulbs but most of the flashing effects are designed for fast responding LED bulbs. When used with incandescent bulbs total load should not exceed 5amp or 60 watts. That means the total wattage for left OR right side bulbs should not exceed 60 watts, but if the motorcycle is equipped with 4-way hazard flashing then total wattage of left AND right sides should not exceed 60 watts.

LED bulbs do not always provide enough resistance load for turn flasher timeout feature to work properly. Connect provided load resistors to the left and right side. Find more information in the configuration section.
Configuring flashing pattern.

To configure flashing pattern follow the procedure below:

1. With ignition off set turn signal switch to the left or right position.
2. Push buttons #1 and #2 (connected to White and Green configuration wires) and turn ignition on.
3. Turn signal light will turn on for 1 second. Release buttons and the turn signal light should start to blink. *If the light came on for 1 second but does not blink afterwards it would indicate there is not enough load supplied by the turn signal bulbs. Connect provided load resistors to the left and right sides. Resistors are connected parallel to the bulb, either front or back. See FIGURE 2 below. We provide high resistance 10K resistors which will not get warm or hot during operation comparing to the load resistor commonly found as a fix during LED bulb replacement. If the load resistor already in place from other installations you can keep and not replace them.*
4. Now flasher is in configuration mode. Pushing button #1 would select next flashing pattern. Patterns are arranged in groups, each pattern has five different flashing rates. When button #1 is pushed next ‘faster’ flashing rate is selected. Once you go through all five flashing rates the next flashing pattern will be selected with slowest rate and so on. Once the last pattern has been reached the next selection will start from the initial pattern. Initial pattern is standard *blink-blink* with five different rates.
5. To select timeout mode use button #2. Timeout mode determines when to stop flashing turn signal in case it was forgotten to be switched off. There are nice different options. To change timeout selection push button #2. First push of the button #2 will cancel turn signal pattern display and turn lights off.
6. Push button #2 again and the light will blink. The number of blinks indicates selected timeout:
   - 1 – 5 seconds
   - 2 – 10 seconds
   - 3 – 15 seconds
   - 4 – 20 seconds
   - 5 – 1 minute
   - 6 – 2 minutes
   - 7 – 3 minutes
   - 8 – 4 minutes
   - 9 – Timeout disabled.
7. Once flashing pattern and timeout has been selected turn the ignition off. Configuration is complete.

Troubleshooting

| Light does not flash when I go into configuration mode. | 1. If light comes on for 1 second but does not flash afterwards it would indicate that there is not enough load on activate flashing. Add resistors.  
2. If light does not come on at all check your wiring, making sure that red wire get power and yellow wire connected to the wire going to the switch. Turn signal switch has to be ON in either left or right position. |
| --- | --- |