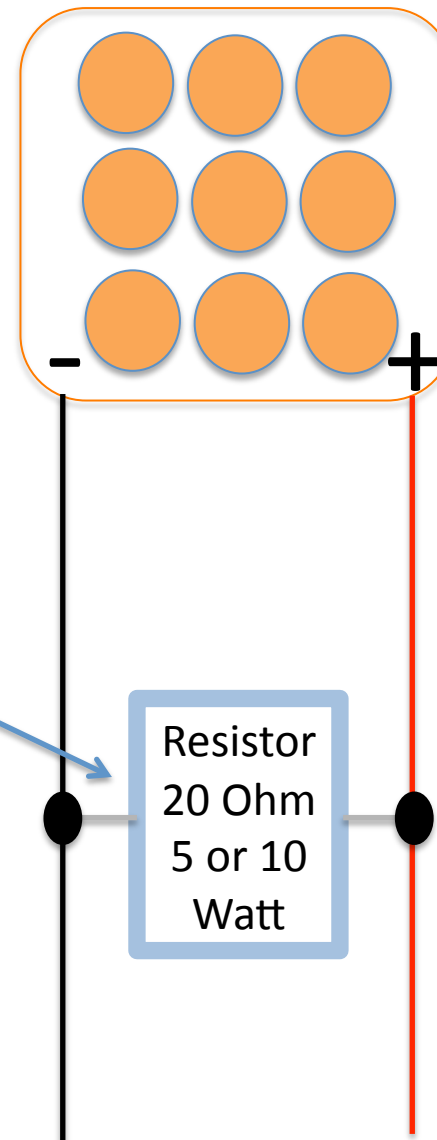


Before

After

For each LED signal/indicator package connect a resistor between positive and negative wires. This can be absolutely anywhere between the wires that "feed" it. The resistor can be either way around as the resistors do not have polarity.

LEDs must be connected the right way round as they do have polarity.



The next page applies to each side of the bike.

The resistor or resistors can be anywhere in the wiring to the indicators. The flasher unit does not “know” or “care” where the resistors are in the left and right side wiring, just as long as it is connected between the two wires in each of the left and right indicator circuits.

If you are just converting front or rear indicators (2 indicators all up), you need two x 20 Ohm 5 or 10 watt resistors. I.e. one for each side of the bike as per second pic from the top.

If you are converting front and rear (4 indicators all up) you have two options.

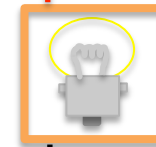
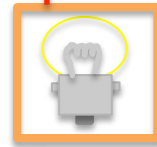
First option is one resistor per LED indicator as shown in the third pic from the top. So you need four x 20 Ohm 5 or 10 Watt resistors. Two per side of the bike.

The second option is one resistor per side as per the bottom pic. In this case you need two x 10 Ohm 10 or 20 Watt resistors. One for each side of the bike.

HEAT – the resistors will get warm/hot because they are consuming power, so locate them where the heat will not do damage. It will get as hot as the bulb does because it is consuming the same power as the bulb it is replacing. The one resistor per side will be hotter as it is dissipating the same power as two bulbs.

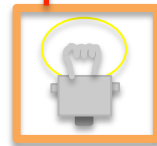
Richard Collins. [www.punchlineenergy.com](http://www.punchlineenergy.com)

To switch

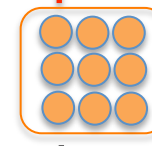


Stock

To switch



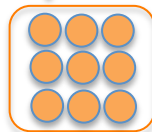
20 Ohm 5  
or 10 W



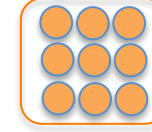
One LED  
per side

To switch

20 Ohm 5  
or 10 W



20 Ohm 5  
or 10 W

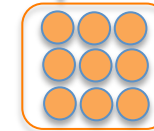
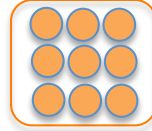


Two LEDs  
per side

OR

To switch

10 Ohm 10  
or 20 W



Two LEDs  
per side