

# CUSTOM LED MAGIC BLINKER INSTALLATION INSTRUCTIONS

## INPUT LEADS

### RED: POWER SOURCE +12V

CONNECT THIS WIRE TO AN IGNITION SWITCHED SOURCE SUCH AS THE RUNNING LIGHT LEAD. **NOTE: THIS SOURCE MUST BE CAPABLE OF DELIVERING ENOUGH CURRENT TO DRIVE ALL THE LOADS ATTACHED TO THE OUTPUT OF THE MAGIC BLINKER.**

### WHITE: BLINK SIGNAL +12V

CONNECT THIS WIRE TO THE BLINKER WIRE. THIS LINE DRAWS APPROXIMATELY 150mA (LOW CURRENT) UNDER NORMAL OPERATION. **NOTE: IF YOU ARE USING "CUSTOM LED LOAD EQUALIZERS" TO SLOW YOUR BLINK RATE, CONNECT THEM BETWEEN THIS WIRE AND THE BLACK WIRE.**

### BLACK: COMMON GROUND

CONNECT THIS WIRE TO A GROUND SOURCE SUCH AS THE STOCK BLINKER GROUND WIRE. **NOTE: THIS SOURCE MUST BE CAPABLE OF DELIVERING ENOUGH CURRENT TO DRIVE ALL THE LOADS ATTACHED TO THE OUTPUT OF THE MAGIC BLINKER.**

## OUTPUT LEADS

### YELLOW: NORMALLY "ON" +12V POWER

CONNECT THIS WIRE TO THE INDICATOR LAMP(S) YOU WISH TO FUNCTION AS RUNNING LIGHTS AND BLINKERS. THE VOLTAGE ON THIS LINE WILL BE INTERRUPTED (0V) WHEN AND FOR THE DURATION THAT THE WHITE WIRE IS SUBJECT TO 12V.

**NOTE:** SEE THE IMPORTANT NOTE BELOW.

### BLACK: COMMON GROUND

THIS IS THE GROUND WIRE FOR YOUR OPERATED DEVICES (LAMPS).

### ELECTRICAL SPECIFICATIONS:

MAXIMUM RECOMMENDED SWITCHING CURRENT: 2A (30W)

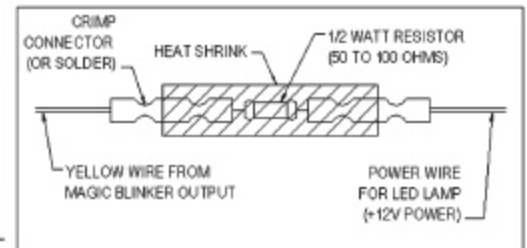
MAXIMUM SWITCHING CURRENT: 12A

INTERNAL RESISTANCE: 0.18 OHMS

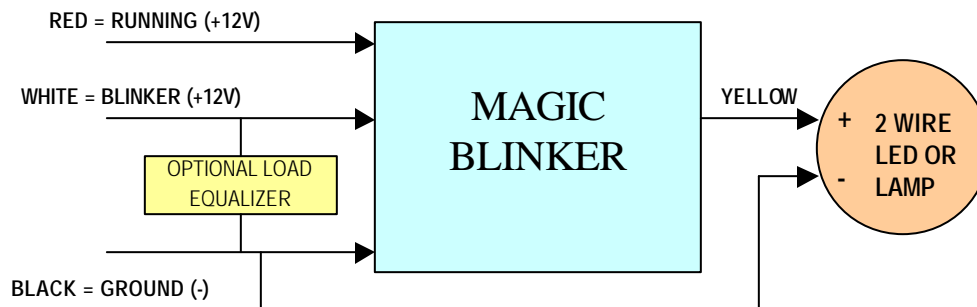
SWITCHING SPEED: SOLID STATE MOSFET: 1Mhz

## IMPORTANT NOTE REGARDING LED LAMPS AND INDICATORS

SOME LED FLUSHMOUNT MANUFACTURERS DESIGN THEIR PRODUCTS TO OPERATE ONLY AS A BLINKER AND THEREFORE "OVERDRIVE" THE LEDS TO GET ADDITIONAL BRIGHTNESS. THIS DESIGN METHODOLOGY REQUIRES THAT THE LEDS OPERATE ON A 50% DUTY CYCLE (ON AND OFF, NOT CONSTANTLY ON). WHEN OPERATING THESE TYPES INDICATORS AS A RUNNING LIGHT, YOU MAY OVERHEAT OR DAMAGE THE LEDS. CHECK WITH THE MANUFACTURER OF YOUR LED INDICATORS BEFORE USING THEM AS RUNNING LIGHTS - OR MONITOR THEM CAREFULLY FOR HEAT BUILDUP AFTER INSTALLATION. IF YOU NOTICE EXCESSIVE HEAT BUILDUP, REFER TO THE DIAGRAM ON THE RIGHT AND INSTALL A 1/2 WATT RESISTOR INLINE WITH EACH LED MODULE ACCORDINGLY. THIS WILL REDUCE HEAT BUILDUP AND PROLONG THE LONGEVITY OF YOUR LED INDICATORS.



## TYPICAL INSTALLATION DIAGRAM



### TROUBLESHOOTING:

**PROBLEM:** YOU INSTALLED THE CUSTOM LED MAGIC BLINKER AS THE INSTRUCTIONS SAY BUT THE BLINKERS BLINK ONCE THEN STOP OR THEY DON'T BLINK AT ALL OR THEY BLINK TOO FAST.

**CAUSE:** THE STOCK FLASHER RELAYS ON OUR CARS AND MOTORCYCLES - WHICH ARE THE DEVICES THAT MAKE BLINKERS "BLINK" - ARE DESIGNED TO BLINK TWICE AS FAST AS NORMAL WHEN A BULB IS BURNED OUT. THIS IS TO LET THE OPERATOR KNOW THAT THERE IS A BLINKER BULB BURNED OUT. MOST AFTER MARKET BLINKER PRODUCTS (INCLUDING CUSTOM LED PRODUCTS) CONSUME SO LITTLE POWER COMPARED TO THE STOCK BULBS, THAT THE FLASHER RELAY THINKS THAT A BULB IS OUT WHEN THIS IS NOT THE CASE. SOMETIMES, THE POWER CONSUMED IS SO LITTLE, THAT THE BLINKERS DON'T EVEN BLINK AT ALL!

**SOLUTION:** SIMPLY REPLACE THE FLASHER RELAY WITH ONE THAT IS NOT DESIGNED WITH A "BULB OUT NOTIFICATION" OR YOU COULD INSTALL A CUSTOM LED LOAD EQUALIZER. THE CUSTOM LED ELECTRONIC FLASHER RELAY, OR LOAD EQUALIZERS, ARE THE PERFECT SOLUTION FOR THIS! SEE [HTTP://WWW.CUSTOMLED.COM](http://www.customled.com) FOR MORE INFORMATION.

**NOTE:** ALL POWER TO RUN THE LOADS ON THE OUTPUT SIDE OF THE MAGIC BLINKER IS DRAWN FROM THE RED WIRE ON THE MAGIC BLINKER - THE WHITE WIRE ONLY DRAWS 150mA.

FOR ALL OTHER INQUIRIES AND TECHNICAL SUPPORT, PLEASE CONTACT: YOUR VENDOR, [WWW.TOBEFAST.COM](http://www.tobefast.com), [STREETBIKES@TOBEFAST.COM](mailto:STREETBIKES@TOBEFAST.COM) OR [SUPPORT@CUSTOMLED.COM](mailto:SUPPORT@CUSTOMLED.COM).