# CUSTOM LED BLINKER GENIE 2 INSTALLATION INSTRUCTIONS

### **INPUT WIRES**

#### RED: RUNNING LIGHT +12V

CONNECT THIS WIRE TO THE RUNNING LIGHT CIRCUIT. THIS WIRE DRAWS THE OUTPUT CURRENT WHEN THE BLINKERS ARE OFF.

#### WHITE: TURN SIGNAL +12V

CONNECT THIS WIRE TO THE TURN SIGNAL CIRCUIT. THIS WIRE DRAWS NO CURRENT WHEN THE RUNNING LIGHTS ARE ON, AND DRAWS THE OUTPUT CURRENT WHEN THE RUNNING LIGHTS ARE OFF. YOU MAY NEED A LOAD EQUALIZER, OR LED FLASHER RELAY, FOR NORMAL BLINKER OPERATION ON THE VEHICLE.

#### **BLACK: COMMON GROUND**

CONNECT THIS WIRE TO A GROUND SOURCE. ALL GROUNDS ARE GENERALLY COMMON (THE SAME) ON AUTOMOBILES.

## **OUTPUT WIRE**

#### YELLOW: OUTPUT +12V

CONNECT THIS WIRE TO THE POSITIVE INPUT OF THE INDICATOR LAMP(S) YOU WISH TO FUNCTION AS RUNNING LIGHTS AND BLINKERS.

THE VOLTAGE ON THIS WIRE WILL BE 12V IF EITHER THE RUN OR TURN SIGNAL INPUT IS 12V. IF BOTH INPUTS ARE 12V, THIS OUTPUT WILL BE 0V. THIS IS HOW RUN AND TURN IS ACHIEVED FOR ALL INPUT CONDITIONS.

#### NOTE: SEE THE IMPORTANT NOTE BELOW.

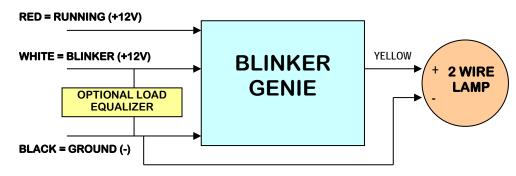
ELECTRICAL SPECIFICATIONS: MAXIMUM RECOMMENDED SWITCHING CURRENT: 2A (30W) MAXIMUM SWITCHING CURRENT: 12A INTERNAL RESISTANCE: 0.18 OHMS SWITCHING SPEED: SOLID STATE MOSFET: 1Mhz

#### 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 AND 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 THE YELLOW WIRE FOR EACH LED MODULE ACCORDINGLY. THIS WILL REDUCE HEAT BUILDUP AND PROLONG THE LONGEVITY OF YOUR LED

CRIMP CONNECTOR (OR SOLDER) HEAT SHRINK	/ 1/2 WATT RESISTOR (50 TO 100 OHINS)
LYELLOW WIRE FROM MAGIC BLINKER OUTPUT	POWER WIRE FOR LED LAMP (+12V POWER)

## **TYPICAL INSTALLATION DIAGRAM**



NOTE: FOR LED INDICATORS SEE ADDITIONAL INFORMATION ON REVERSE SIDE!

#### TROUBLESHOOTING

PROBLEM: YOU INSTALLED THE CUSTOM LED BLINKER GENIE 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 <u>HTTP://WWW.CUSTOMLED.COM</u> FOR MORE INFORMATION.

NOTE: NO POWER IS DRAWN ON THE TURN SIGNAL INPUT WHEN THE RUNNING LIGHTS ARE ON.