## THE MODEL A TOOL BOX

## MODERN TAIL LIGHTS FOR OLD CARS

by Colin Lawson

Light Emitting Diodes (LED) are all the rage for both front and rear lighting for new cars. They take much less power, are brighter and can be arranged in patterns. For the Model A, LED tail lamps can be used in place of #61 bulb tail lights for very high visibility. These lamp assemblies have the upper and lower sections built into one assembly. When used out of the box, both sections act as running lights and stop lights. If you have a model 900 turn signal switch (7 wires) installed correctly, then the stop lights will also act as turn signals.

The lamp assembly comes in two styles; both sections are red, or upper amber lower red. Although upper amber was acceptable for the original Model A brake light, the modern design is to have the brake show only as red and turn signals as amber.

The upper and lower parts are connected by a green wire so both sections work together. By cutting the green wire, the lower section will be the running light and the upper section will be the stop light. When an additional wire is added to the harness with a slight configuration change, the upper section (green wire of lamp harness) would be wired to the turn signal, the lower section (original black wire of lamp harness) remains wired to the existing vehicle running light (black wire), the green wire of the LED lower section needs a wire added to make it the same length as the lamp harness, and it would be connected to the car's harness brake wire (green); it will show bright when on. I drilled a hole close to the lower lamp socket to allow for the third wire with a short piece of shrink sleeve for added protection. For the wooden bodied truck project I added a fourth wire to the lamp harness to ground the lamp shell.



Turn signal light flashers rely on the resistance of the regular light bulbs to energize the flasher and cause the internal heater element to work. Using a regular light bulb on the front may still allow the flasher to work. A problem will occur when LEDs are installed on both front and rear since there is not enough current for the flasher to work. A load resistor or light bulb must be added to the left and right turn signal circuits to ground. Connect a 10 ohm 10 watt resistor (Active Components \$1.99 for 2), splice one end to a turn signal wire and the other to a ground point. The front and rear signal wires



should be connected together and to the left or right turn switch wire. Ideally this should be used with a 4wire turn signal switch (e.g. Do-Ray 441 or similar). If using a model 900 7 wire switch, some wires will not be connected since isolation of the brake and turn signal is not required within the switch.

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