From the Frame Up, LLC



Tech Tips:

EL618 - "D" LAMP LED CONVERSION, Positive Gnd. V4

CAUTION:

- This board is designed for <u>12Volt Positive Ground operation</u>. Any other power applications will destroy the LED board. Please check to make sure that the + on your battery is connected to the chassis/frame.
- Over voltage (in excess of 16 volts) from a misadjusted generator or alternator system will destroy the LED board.

Operation:

The LED lamp substitutes for bulbs in your original or reproduction lamp. This kit is designed so that the conversion is not noticeable except when the board is lit and in operation. The LED board operates as both tail lamps and brake lamps. No other circuits are represented. If you run turn signals that are integrated into your brake circuit you may have to use an electronic flasher unit or add a 10 ohm, 25 watt resistor so that enough current is drawn to make the older thermal flashers work. No modifications to wiring are necessary. Your existing wiring will land on the LED board without modification The LED lamps will be vast improvement to your existing light emitted from your lamps and will draw significantly less current and last almost indefinitely.

Installation:

Modification to the interior of the tail lamp is necessary to install the LED board. This modification can be undone. There are at least two reproductions of the D-Lamp that we have seen. These instructions should be valid for what you have. However, before proceeding, read through the instructions and make sure what you have will work. One reproduction lamp we have encountered does not have the correct "D" shape and is much more rounded than it should be. These lamps will work, but you will need to gently squeeze the D-Lamp housing when closing the cover to get it past the LED board once mounted.

- 1) Open your existing D-lamps and utilizing a voltmeter, verify that you know what each wire represents at the lamp.
- 2) Disconnect the battery.
- 3) Remove the D-lamp from the car. The internal structure will need to be removed. This is done by removing the existing rivets that secure the lamp socket structure to the base of the lamp. Different lamp socket structures exist, and yours may be different. Once the internal bulb socket mount is removed, the LED board can be installed. Drill the two new mount holes in the lamp base. A 3/16" hole will be adequate. For reference, the holes should be approximately11/16" from each side. You can remove the lens from the cover to allow you to view the correct placement of the unit when the cover is closed. Place the LED Board on the lamp base and using the two nylon screws, secure the board from behind the base. The screws will not take extreme torque and it is not needed. Make sure the D-Lamp door closes and

- reinstall your lenses. There will be slight tension as the lamp cover meets the gasket and the LED Board.
- 4) Reinstall the lamp and push your existing wiring through the entry hole as before. If you do not have enough wiring length, you may need to make an extension for each wire.
- 5) Utilize your existing wiring to the lamp. Each wire sheath should be trimmed back 3/16". Do not allow excess exposed wire as shorts can take place. Take the wire from the brake circuit of your car and insert it into the #3 terminal of the LED Board. Push the wire in until the sheath rest against the outside of, but does not enter the terminal block. Tighten the setscrew. Take the wire from the tail circuit of your car and insert it into the #2 terminal of the LED board. Gently tighten the setscrew. Take the remaining wire, which represents the return, or ground circuit of your car and insert it into the #1 terminal and again tighten the setscrew.
- 6) Reconnect the battery and test the operation of the lamp. Your brake lights will not work without the ignition on generally.
- 7) If you have turn signals and a heavy duty flasher, it might be necessary to add an additional load on the flasher. A 10 ohm, 25 watt resistor should do it or replace the mechanical flasher with an electronic one available at any auto parts store.

Safety Fast!

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