LED Information *author unknown*



Here is my write up on the conversion to LEDs for the taillights and turn signals. What you need to order to switch out the tail lights and front two turn signal lights under the headlights and the two lights above the license plate is:

2 (ea.) x 1156 45 LED of the super whites (back up lights)

6 (ea.)x 1156 45 LED super red (three on each side)

2 (ea.) x 1156 45 LED super amber (turn signal)

2 (ea.)x 1157 super amber 45 LED (for front two turn signal lights)

1 (ea.) x 36 mm white 6 LED Festoon bulb for the license plate lights (the package contains two bulbs)

Except for the festton bulbs, what I ordered had 45 LEDs on each bulb.

The cost is about \$110 but a 10% discount can be obtained by signing up on the sellers mailing list and getting a coupon.

Information on the 1156 and 1157 can be found at:

Information on the festoon bulbs can be found at: <u>http://stores.ebay.com/US-Home-</u> <u>Direct_Festoon_W0Q0colZ4Q0dirZ02d1Q0fsubZ6Q0ftidZ2Q0tZkm</u>

The guy's email address is: calmotor@yahoo.com or ushomedirect@yahoo.com

One other thing needs to be taken care of. Since the LED turn signals draw so little current, you need to replace the flasher relay located next to the steering column. Otherwise the car thinks a bulb is out and will blink fast. You can order the correct relay at http://superbrightleds.com/flashers.htm. The part number is CF13GL-02.

Other information regarding LEDs from Delorean owner Alan Robers: Two other notes. I believe that one of the ideas of putting the LEDS in is to reduce the heat dissipated by filament bulbs. Certainly there are two locations in the car where heat seems to be a problem. The lighting bulbs for the headlamp and hazard switches are one (comments about these lamps causing switch failure are on the page today). Of course by putting the LEDS in door and running lights, the amount of current switched by the headlamp switch is reduced, also lowering the heat dissipated there.

The environmental panel replacement is also a good. If you wanted to replace these bulbs with LEDS (a real easy job to do by the way) then you could undo one of the early fixes (jumper in relay box) that disabled the lamps during daytime. Here the worry was keeping the radio warm.

By the way both fixes can be done at the same time as these are all in the same place. I think that the three warning bulbs should be replaced also..

I don't know if there have been too many complaints of tail lights burning through their lenses.

If you go to do this, look at the 1156-LX3's on Superbright LEDS. They should work well, but I'd have trouble justifying the price.

By the way, put the same color LED in as is the lens color (red in red, white in white, amber in amber). This really increases the amount of apparent illumination.

Now for the resistor question. If you decide to use the LEDS for turn indicators (1157 fronts and 1156 rears) then resistors must be placed across the LEDs (electrically that is) so that the same amount of current is drawn when the bulb is excited. Otherwise, the blinking time of the flashing unit will be shortened or non-existent. I have seen flashing units that have electronics in them to keep the flashing time constant regardless of load more or less. As I said in the previous letter, this eliminates what I think is an obvious failure detector, Your choice. Adding resistors also makes for other problems. Somewhere their heat must be dissipated and also this puts the current back in the wiring which could be seen by some as another "bad".

Four caveats. One has to do with LED polarity. Some of the smaller LEDS are polarized, and have bases that allow them to be plugged in either of two ways. If you put in a LED and it doesn't seem to be working, then take it out and rotate it 180 degrees and try again. The small bulbs, such as those in the headlamp and hazard switch will short out the circuitry because of the way the base of the LED and its connector are made. The wires on the base must be cut, so that the two sides of the connector are not shorted together. If you do this replacement, compare the bulb with the LED and look at the connector, all will be obvious. I blew a couple of fuses before I figured this one out. Lastly, it you do the instrument panel failure indicator bulbs (I think a good fix), and if you have a tankzilla type device, then don't replace the bulb for the "get ready to walk" amber light. The tankzilla draws current through the bulb for power (eliminating the need to run a separate 12 V line to the tankzilla) The LED will be on all of the time. And lastly, John H. and I have had some discussions about this one. The "alternator failure" lamp is the issue. On the "factory Motorola" alternator, the bulb serves as the source for starting current for the alternator. With his replacement alternators, he claims that is it a ballast.. I've had no problem with replacing the bulb with a LED, but if you have the replacement type alternator it could be.

Put the LEDS in....they really help. It nice to know that you can leave the doors open for hours and not have much battery drain, or lens melting.