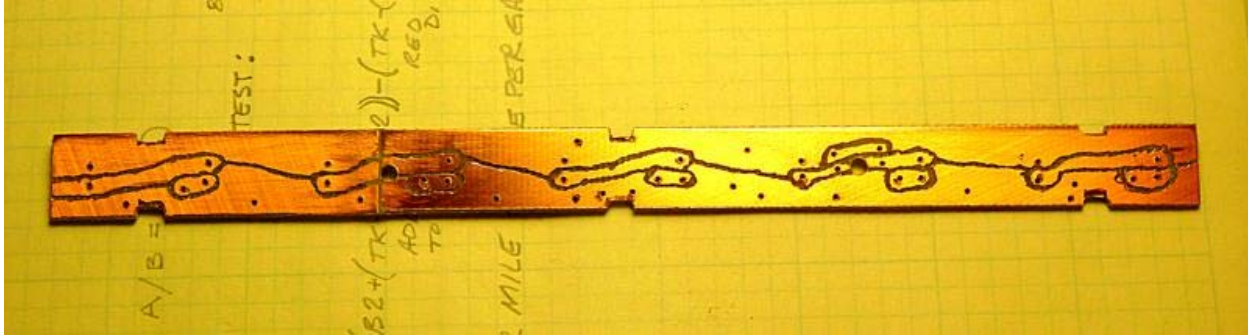


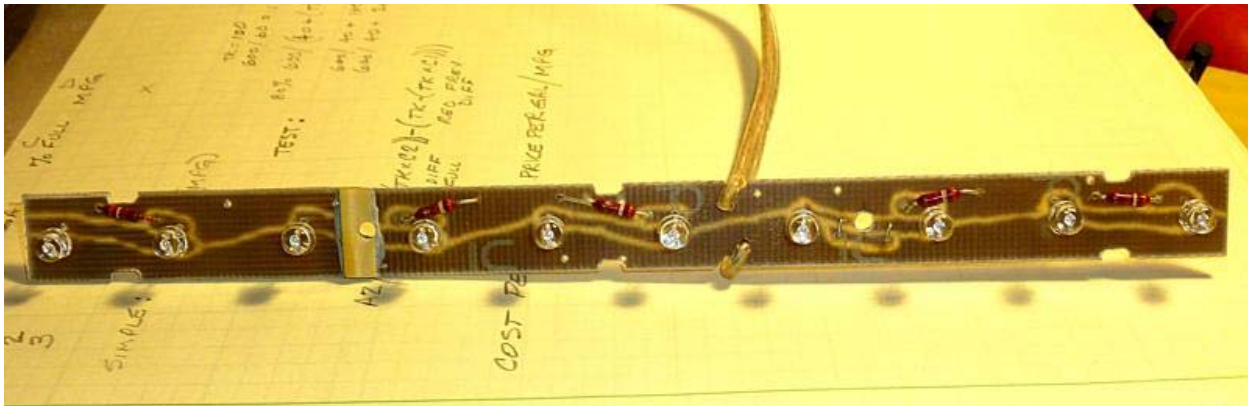
### Third Brake Light

The 3<sup>rd</sup> brake light on my 98 Sahara was getting rather dim so I decided to see what it was about. I removed it from the coach by removing the plastic plugs over the screws with a sharp knife and then removed the screws. Once off, I found the circuit board containing twist on sockets for # 73 bulbs and the reflector could be removed from the housing by gently lifting the clips molded as part of the housing. The holes for cooling allowed years of dirt inside but some soap and warm water soon had it good as new. I could just re-assemble it at this point but I wanted LEDs for the lights.

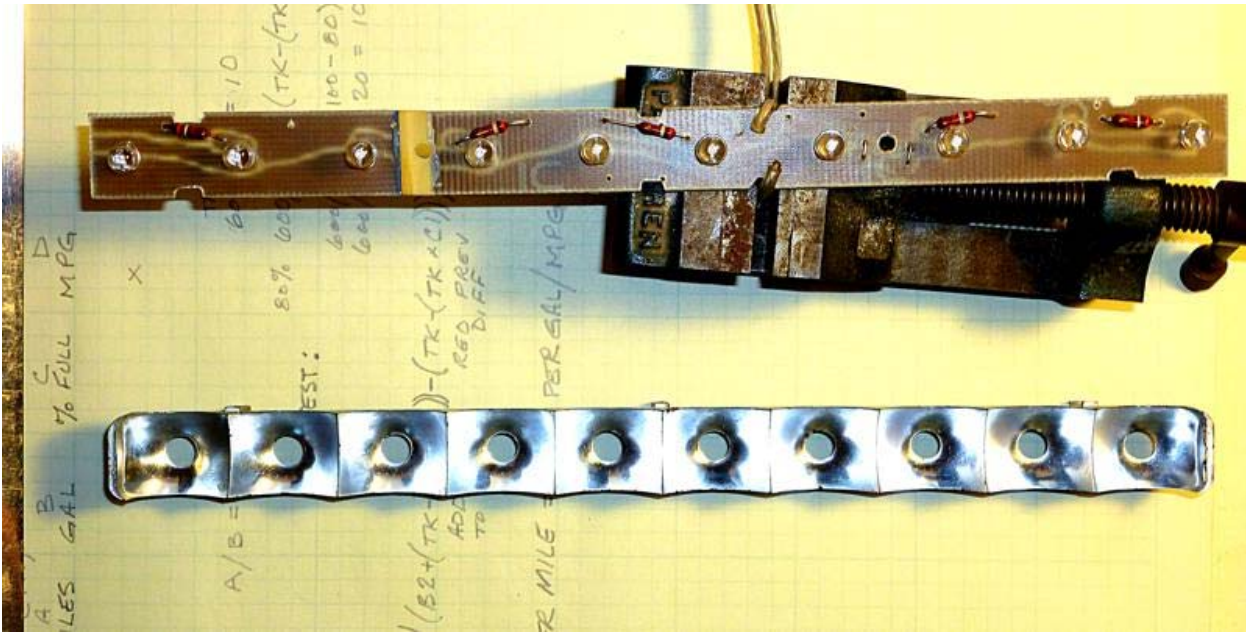
I made my own circuit board for the LED bulbs in the same form as the stock one. The board stock I had on hand was not long enough so I epoxied two pieces together. Instead of etching, I used a Dremel tool to grind away the copper to isolate the traces. Keep in mind that this is a prototype.



I added bright red LEDs in pairs with a dropping resistor for each pair.



## Third Brake Light



Here is the circuit board in place with the reflector ready to go back into the housing. The result was a success.

I also designed an external circuit that blinks the light about 4 times in rapid succession and then stays on steady until the brake is released.

Jim Exler