



Retrofitting Daytime Running Lights to a classic car

Many classic cars built in the 60s, 70s and 80s, and even the 90s in the case of the RV8, have relatively modest lighting as the original equipment. So most owners of MGBs and MG V8s have binned the sealed beams fitted as original equipment and gone for a set of new lenses and halogen bulbs which has transformed the headlights from candle power to near modern standards of auto lighting. But often the original rear lights are woefully at a low level of illumination when compared with modern rear lights at night. So whilst a headlight upgrade is mainly to aid forward vision at night, the essential concern which is increasingly a matter classic car enthusiasts will have to consider is the relative lighting standards of the back of their car when compared with more modern vehicles. With

increasingly brighter lighting on new and modern vehicles the **relative visibility has become a major factor in safety for classic car enthusiasts** and other road users like motorcyclists. So how can a classic car enthusiast improve the relative visibility of their car particularly at night and in adverse conditions but also during the daytime?

The **first option is an LED auto bulb upgrade** for your front sidelights, rear stop and sidelights and possibly the indicators too. The bulbs are brighter and as LEDs consumer considerably less power which is an advantage with a classic car, not least for an ageing wiring loom.

The **next or parallel option is a headlamp conversion to a new pair of reflectors and lenses with halogen bulbs**. The transformation can be truly stunning when compared with ageing sealed beams.

The **third option is to fit a set of Daytime Running Lights** or DRLs to the front of your car which provide bright lights which the promoters claim will increase the visibility of the car particularly when more new cars on our roads have them fitted as standard. So we are back to the relative visibility concern again.

DRLs are controversial - those in favour of daytime running lights claim they significantly reduce road deaths and serious injuries, while those against object to the constant glare of headlights during the daytime and have voiced concern that motorcycle riders may become less conspicuous, even with headlights on.

A European Commission study in 2006 suggested that a substantial number of casualties could be prevented across the EU with a positive benefit-to-cost ratio when the costs of fitting lamps and the environmental cost of running them were taken into account. A later UK Department for Transport (DfT) study confirmed the Commission's findings that there would be a net reduction in accidents, but cast doubts about whether the benefit would outweigh the costs. The UK study also concluded that dedicated DRLs could improve the visibility of cars in dim light without reducing the conspicuity (an EU term) of motorcyclists.

European legislation adopted in 2008 required dedicated daytime running lights to be fitted to all new 'types' of passenger cars and small delivery vans since February 2011. Trucks and buses followed from August 2012. DRLs are designed to come on automatically when the engine is started - all other lights should remain off. There is no requirement to retro-fit DRLs to existing cars and no Europe-wide requirement for drivers of cars without DRLs to drive with headlights on during the day. If you're driving abroad, check for local rules. DRLs don't have to be separate lights - some car manufacturers combine them with the front position lamps (side lights) in which case the DRLs will dim when the headlights are turned on.

Are DRLs also becoming a fashion or car styling item?

Far from being considered primarily a 'safety feature', it is clear many car manufacturers and the motoring press are treating **DRLs as a 'stylish addition' to new cars**, concentrating on the look of DRLs as adding character to a car rather than simply contributing to its safety. So with brands like Audi and Land Rover the DRLs take on the form of "surprised eyebrows" in your rear view mirror conveying a degree of assertiveness which some drivers feel



uncomfortable with, reminding them of the classic BMW advert from the early 70s with a BMW in the rear view mirror and **the classic strapline – “move over!”**.

Are DRLs too bright?

Some pressure groups like “Lightmare” are particularly worried that the European standards that have been introduced require lights that are too powerful for our normal use and the lights on current cars, particularly new cars, are now far too bright to be safe. The regulations (UN ECE Regulation 87, Revision 2: Daytime running lamps) are clear in terms of the **specification of the light** (brightness and angles, construction and approval) and the **use** (to make the vehicle more easily visible during daytime).

How can a set of DRLs be fitted to a classic MG?

Fellow member Vic Todman has fitted a set of DRLs at the outer edges of the grille on his MGBV8 Roadster, located next to the inside face of the grille. His decision to retrofit DRLs was after another vehicle had almost crashed into his V8 and he then felt his MG needed much more visibility at the front. So he investigated the use of LED

DRLs but didn't want to add anything that would spoil the lines of the car, be too easily seen or involve gluing units to the bodywork. On eBay he found some miniature LEDs

intended for fitting to motorcycles which were 35 mm long with 25 mm of 9mm screw thread and an 18mm diameter lens. He was able to fit them so they would shine between the vertical slats in the radiator grille. The LEDs were on offer at about £2.60 including postage by worldone2012 listed as 2x DC 12V 3W LED DRL Eagle Eye Car Motorcycle Daytime Running Tail Backup Light. Although their wattage is lower than a standard sidelight, LEDs emit about 80 lumens/watt compared to about 16 lumens/watt for an incandescent lamp. So a 3 watt LED should yield about three times as much light as a traditional 5 watt sidelight.

He had to move the horns to improve airflow to the radiator and was able to make small brackets in 0.7 mm stainless steel for the LEDs, picking up the redundant mounting holes. The mount could be sandwiched between the inner wing and the horn bracket; with space for the LED to be clear of the horn and to align between the first and second grille slats. He was not sure that one LED would be bright enough to show up much at 50 yards, so he went for two LEDs on each side on revised mounts. In terms of aesthetics less of the bracket is visible. The LEDs need a separate earth connection to a relay to switch off as the main lights are turned on. In terms of daylight visibility he could see a single 3 watt LED is significantly brighter than the standard 5 watt sidelight and the quality of the light is definitely more concentrated.

Vic Todman's MGV8 is certainly more visible now both for day and night driving.

