

Hello Mac,

Thank you for your email.

The question of external vehicle lighting LED upgrades and legality, particularly headlights, is a complex issue which is not made any clearer by the fact the regulations stem from the RVLA.

We discuss legality with a number of organisations and individuals on a regular basis, such as EU commissions, MOT Inspectors, Insurers and many Classic Magazine writers who thoroughly research the matters with the DfT and other regulatory bodies.

Generally LED conversions are not 100% road legal for all external bulbs, though ours all show the correct output and beam patterns (which many don't) so are not normally picked up by MOT testing and don't give glare to other road users. Many insurers are now becoming tolerant of them though and allowing the use of good quality LEDs such as ours, particularly on classics, as they are CE marked and they see them as a big safety improvement. Changing to LED for external lighting is a vehicle modification that you need to advise your insurer of as with any other modification from factory specification.

The changes made in May 2018 to UK MOT law banned HID conversion (not LED) for headlamps and some inspectors are treating this as LED too though many customers are reporting passes since the change was made. We will not guarantee a pass though as the pass is at the discretion of the examiner. Other fittings such as sidelights, brake lights and indicators may be OK for MOT purposes but again this is at the discretion of the examiner and this does not make them road legal. A number of clubs we work with on regular basis have contacted their local MOT stations and have been advised that LED upgrades are fine in their view as long as the tests results are satisfactory. A small proportion have advised they would not pass a vehicle fitted with LED conversions.

This situation was raised with the FBHVC for their comment and they reported:

The Federation has covered the general topic of using LED light sources in historic vehicles in an article published in the FBHVC Newsletter, edition 5/2017. This is available on the Federation website (<https://www.fbhvc.co.uk/newsletter-archive>). From this you will see that the use of LED light sources in headlamps is very likely to be in contravention of the regulations. With regard to the 2018 change to the MOT Regulations the relevant amendment, which itself reflected already existing DfT advice, applied specifically to HID conversions. As you know HID is a different technology to LED and in our opinion to apply that requirement to lamps with LED light sources would be incorrect.

One of the problems here is that there is yet to be a test case with the courts to prompt definitive legislation on the use of LED bulbs being retrofitted to classic vehicle headlamps. Another is interpretation by MOT testers of the current lighting regulations. The Editor of one of our local club magazines own experience is that in a 'straw poll' of four local MOT stations, including testers who had undertaken recent training, is that they all passed classic cars fitted with LED headlight (and sidelight) bulbs, provided the beam pattern was correct, did not dazzle, were the correct colour etc. This of course is not conclusive but seems to indicate that the interpretation of the regulations is inconsistent and also, perhaps, that the technology is moving faster than the law.

The Road Vehicle Lighting Act (RVLA) gives some exemption to vehicles of certain ages but as the act does not specifically mention LEDs it cannot be inferred by their absence that they are legal for road use despite what others may state. As a result we are cautious and sell all our external LEDs on the basis of "Off Road Use" only.

It's a grey area between safety and legality that we leave to customer choice. Our Terms and Conditions which are linked to on every page on our website and email footer cover this. Internal LED conversions are 100% legal and are not covered by the RVLA.

External LED conversion is an area where the law has not kept pace with technology. However there is the battle with the large vehicle manufacturers and the influence they have with the authorities due to tax revenues, who do not like their vehicles being open to the aftermarket. At present, and we believe unfairly, LEDs, to gain homologation, need to be approved in every single light unit they could be fitted to. As you can imagine, this is an impossible task.

The wattage referred to in the RVLA actually refers to the light output, not the load. It's another reason the legislation needs to be revisited and updated as it is seriously behind where the industry is with technology.

We've been looking at this for a couple of years. The result of our research and correspondence received from a number of sources is as follows:

LEDs used for headlamps as LED modules for example, are always approved in combination with the complete headlamp (Regulations Nos. 112, 113 and 123). According to the Department of Transport (DfT), the Road Vehicles Lighting Regulations 1989 do not mention more recent developments in alternative light sources at all, such as HID's (or LEDs) and, according to the DfT, this means that, strictly, such light sources are not allowed under British law. Many people presume that, because something is not mentioned, it is allowed, which is incorrect. The date exemptions shown in Schedule 4 only apply to technology that was available at that time, being filament bulbs.

We've also checked with United Nations Economic Commission for Europe and they have advised that no type approval currently exists for any LED module in the EU despite what is claimed by some as mentioned above. There are working groups within UNECE looking at retrofit LEDs but no decisions have yet been made.

The E mark approval shown on many units coming out of Asia often only grants type approval to that particular LED bulb in accordance with UN Regulation No.10 Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility. IDIADA concluded that the LED bulb does not cause electromagnetic interference and granted the type approval accordingly, with the marking R10-05, i.e. UN Regulation No.10, revision 5 (latest version). This does not make it road legal but is just an E Mark to state it will not cause electromagnetic interference. To ascertain what the E mark is for, you need to ask for the certificate of approval which will state the section of the regulations that the unit is approved under. In a lot of cases they will not provide it.

As far as we are aware, this is the full legal position for external vehicle LEDs which is why we state "off road use only". We are continuing to find an approval route but it will not be quick unless the various bodies decide to look carefully at the excellent products now available and the fact that the beam patterns and lighting are often better than older filament fittings and provide a safer motoring experience.