

Vehicle Standards Guide 1 (VSG-1)

Driving Lamps - including Light Emitting Diode Light Bars

Purpose

This guide provides advice for vehicle owners and modifiers, of the vehicle standard requirements when attaching LED light bars to a heavy vehicle for use as a driving lamp.

Introduction

Driving lamps (additional lights fitted to a vehicle that are used as extra highbeam headlights) are common accessory lights fitted to vehicles. Driving lamps fitted to heavy vehicles have traditionally been spot lights, however due to changes in technology the use of LED light bars as driving lamps is common.

Changes made to the Australian Design Rules (ADRs) allow for single driving lamps to be fitted, rather than needing to fit lamps in pairs. While this change has made it easier to fit LED light bars and other driving lamps, it is still important to make sure that driving lamps are correctly fitted to a heavy vehicle.

The fitment of driving lamps to a heavy vehicle is a minor modification and **does not** require approval from an Approved Vehicle Examiner (AVE) or the NHVR. The vehicle must continue to be within the manufacturer's specifications and comply with the national heavy vehicle standards.

Further information about AVEs and heavy vehicle modifications can be found at www.nhvr.gov.au/hvmodifications

Requirements for fitting and using driving lamps, including LED Light Bars

- The lamp/s must be fitted to the front of the vehicle, symmetrically about the centre.
- The lamp/s must be installed in a way that the light produced does not cause the driver of the vehicle discomfort either directly or by reflection.
- The lamp/s must only come on when the main-beam (high beam) headlamps are used, and must automatically turn off when the main-beam headlamps are turned off.
- No more than four (4) driving lamps may be fitted to a vehicle.



Figure 1: Example of LED Light bar

- Lamps must not be fitted in a way that obstructs the driver's field of view

Number of Lamps

An LED light bar is considered to be one lamp if all of the LEDs operate together.

If an LED has different parts or sections that can be switched on or off independent of other parts (sometimes referred to as being switchable) then each independently controlled section counts as a lamp.

Maintaining driving lamps

If a driving lamp is fitted to a vehicle, it must be maintained in a safe and roadworthy state. This includes making sure the lens is not broken and the bulbs/LEDs are working.

LED lights are different from other light sources as they normally use a number of individual LEDs to make a single light. For an LED light that has more than one (1) diode, at least 70% of the diodes in the light must be working for the light to be compliant. For example, if an LED light bar is made up of ten (10) diodes, at least seven (7) of the diodes must be working. If only six (6) diodes work, the lamp is non-compliant and the vehicle it is fitted to is defective.

Chain of Responsibility

Under the Chain of Responsibility (CoR) laws, relevant parties in the transport supply chain have a duty to ensure the safety of their transport activities.

Parties in the chain have an obligation to eliminate or minimise potential harm or loss (risk) by doing all that is reasonably practicable in their business to ensure safety.

Implementing a system to ensure you are informed of changes to the vehicle safety standards and apply these to your business can support transport safety.

Complying with the Heavy Vehicle National Law

The operator of a heavy vehicle must ensure their vehicle complies with the *Australian Design Rules* (ADRs) and *Heavy Vehicle (Vehicle Standards) National Regulation*. Using or permitting another person to use a defective heavy vehicle on a road is an offence.

A defective heavy vehicle is a vehicle that:

- does not comply with the heavy vehicle safety standards; or
- has a part that does not perform its intended function; or
- has deteriorated to an extent that it cannot be reasonably relied on to perform its intended function.

Penalties can include on-the-spot fines or prosecution. Formal warnings or a defect notice may also be issued. For more information see the Heavy vehicle defects—Compliance and enforcement bulletin at www.nhvr.gov.au/ce-bulletins.

For more information:

Subscribe: www.nhvr.gov.au/subscribe

Visit: www.nhvr.gov.au/hvmodifications

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*Standard 1300 call charges apply. Please check with your phone provider.

VSG-1 Revision history

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