

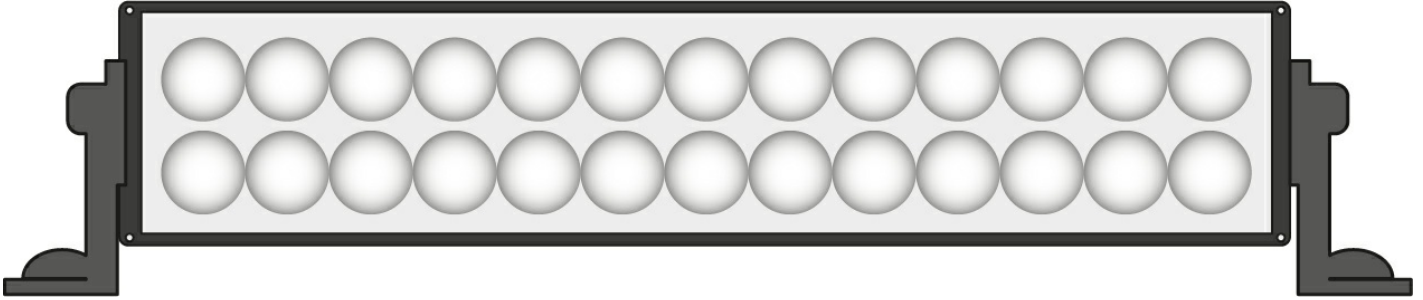
Correct as at 6th May 2021. It may be superseded at any time.

Extract taken from: NZTA Vehicle Portal > VIRMs > In-service certification (WoF and CoF) > Technical bulletins (general) > LED light bars

14 LED light bars

A number of automotive LED light bars are readily available on the market and are being fitted to vehicles. Light bars are long lamps that consist of an array of LEDs, and that project a beam of light. These are generally intended to be fitted as a single lamp to the front centre of a vehicle.

These light bars typically resemble the following:



and



Light bars can be fitted as either headlamps or work lamps, but there are some very specific requirements around each type of fitting and use.

Light bars fitted as headlamps

- On cars and trucks, all headlamps **must be fitted as a pair** (eg not a single centred headlamp). This means that **a centre-mounted single light bar cannot be considered a headlamp**.
- Cars and trucks must be fitted with only one pair of dipped-beam headlamps and up to a maximum of two pairs of main-beam headlamps. Since vehicles come with an OEM dipped-beam headlamp, **a light bar cannot be added for dipped-beam use** (because a second pair is not allowed).
- On mopeds and motorcycles, headlamps can be fitted singly or in pairs, to a maximum of two dipped-beam headlamps and two main-beam headlamps.
- The headlamps cannot dazzle, confuse, or distract so as to endanger the safety of other road users.
- The centre of the beam pattern must be pointed horizontally or down (not upwards) and to the centre or left (not to the right).
- The main-beam headlamps must still be able to be dipped or extinguished from the driver's seating position.
- All headlamps must meet an approved safety standard unless fitted to older vehicles (before 1992 for class MA and NA, before 1996 for others (excluding group L, which are before 2006)).

Note: because many light bars on the New Zealand market do not comply with approved standards for headlamps, they cannot be fitted to a vehicle as headlamps.

Light bars fitted as work lamps

- A vehicle, other than a moped, may be fitted with one or more work lamps, which are defined as follows:
 - **Work lamp** means a high intensity lamp, which is not necessary for the operation of the vehicle but is designed to illuminate a work area or scene; and includes:
 - (a) a scene lamp; and
 - (b) a spot lamp; and
 - (c) an alley lamp.
- A work lamp isn't for normal on-road driving.
- Work lamps may only be used when the vehicle to which they're fitted is stationary or travelling slowly; and to illuminate a work area or scene.
- A work lamp must not be wired into the head lamps and must be switched to operate independently of other lighting equipment.

Note: a work lamp:

- cannot be fitted to a moped
- doesn't need to meet a lighting standard (as it is for off-road use only)

How to treat light bars at WoF/CoF when fitted as headlamps

Note: because many light bars on the New Zealand market do not comply with approved standards for headlamps, they cannot be fitted to a vehicle as headlamps.

The first step is to determine if the lamp complies with an approved standard. Standards compliant lamps on sale in New Zealand should carry standards markings on the lens.

- European markings will consist of a circle containing a capital "E" followed by a number, or a rectangle containing a lower case "e" followed by a number (it does not matter what the number is)



or



- American markings will be the letters DOT, for example:

DOT

If one of these markings is found, the lamp can be accepted as standards compliant (Note: The Transport Agency is not aware of any of these lamps that have Japanese standards compliance).

If there are no markings on the lamp, it is likely to be non-compliant. The Transport Agency is not aware of any compliant light bars without standards markings at this time, but will update this bulletin if any are found on the market.

How to treat light bars at WoF/CoF when fitted as work lamps

A non-standards compliant light bar, or a standards compliant light bar that is fitted as a single lamp might be classified as a work lamp if it were switched independently of all other lighting equipment.

In this case, the owner/operator of the vehicle should be advised that it is illegal to use the lamp for normal on-road driving.

If a non-compliant light bar is fitted, and it does not meet the criteria for being considered a work lamp, it must be failed a WoF/CoF.

Page added **1 November 2018** (see [amendment details](#)).