INSTRUCTION SHEET

for: **2ZR 980 762-03x / 1461**

# ADR - APPLICATION AND MOUNTING INSTRUCTIONS

## JUMBO-S LED REVERSING LAMP

**Multivolt (Suitable for 12 and 24 volt systems)**

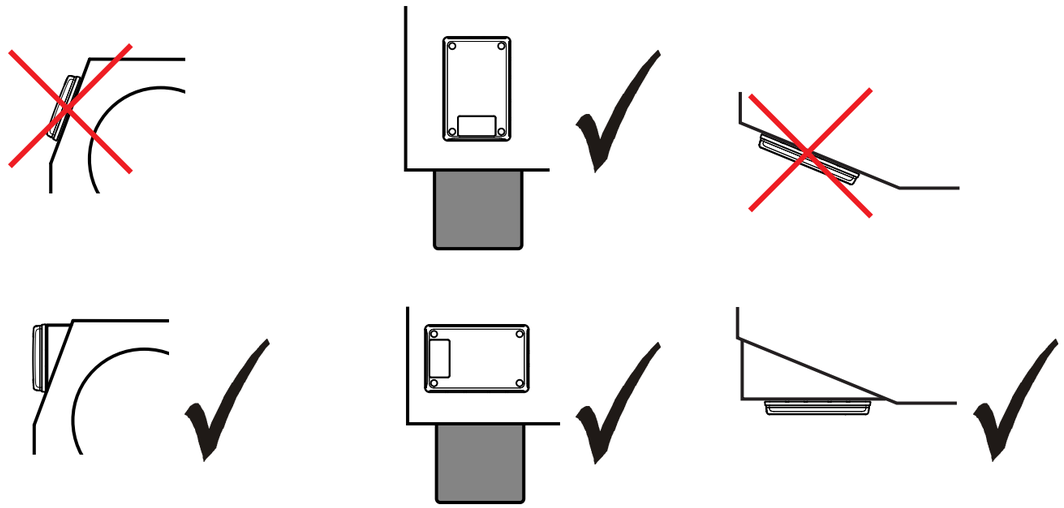
### Lens Marking and ADR 13/00 Installation Requirements

This lamp identified by lens marking 0760 and the HELLA logo, was manufactured to comply with:
ADR 1/00 Reversing Lamps
ADR 47/00 Retro Reflectors

- A tolerance of +/-3° applies on all mounting details.
- Lamp mounting surface must be vertical to the ground, and at right angles to the longitudinal axis of the vehicle.
- Lamp must be visible from 45° inboard and 45° outboard, as well as from 10° above and to 5° below the horizontal axis.
- Lamp is approved to be mounted horizontally and vertically.

Please refer to ADR 13/00 for more details.

**Side View** | **Rear View** | **Top View**



LENS IDENTIFICATION NUMBER: 0760

| CATALOGUE NUMBER | ENGINEERING NUMBER | CRN NUMBER | COMPLIANCE NUMBER | ADR 51/00 GLOBE | ADR APPLICABLE |
|---|---|---|---|---|---|
| 1461 | 980 762-0x | 45442<br>45633 | 1461*RV*C<br>2361*RR*C | N/A<br>LED | ADR 1/00<br>ADR 47/00 |

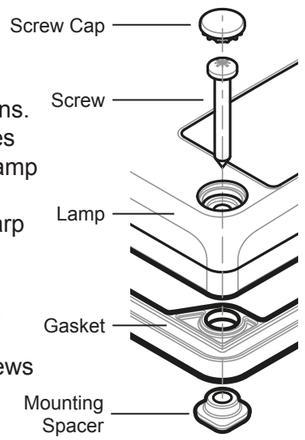
| AMENDMENTS | | | ADR COMPLIANCE VERIFIED | ISSUE DATE: |
|---|---|---|---|---|
| | | | | 02/2014 |
| | | | | 958 315-08 |

**HELLA-New Zealand Limited, Auckland**

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## Lamp Mounting Instruction




### Surface Mounting

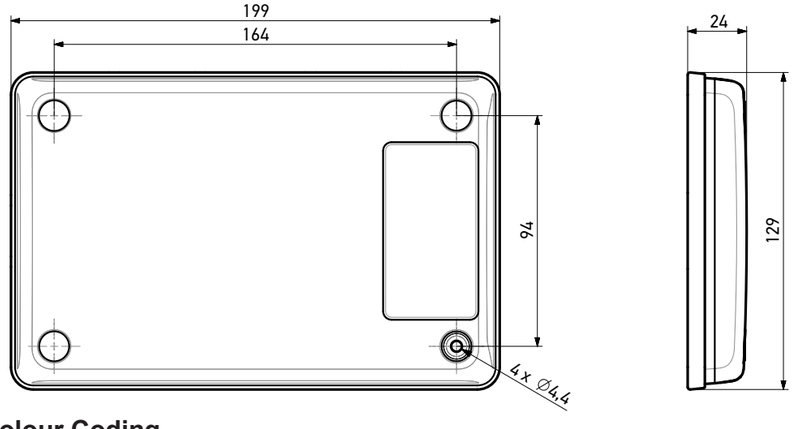
- Lamp should be mounted on a flat surface and as close as possible to the outer extremities of the vehicle. Refer to ADR 13/00 for mounting restrictions.
- Determine a suitable location for the lamp and drill four Ø3.2 mm pilot holes holes according to the hole centre dimensions below, or alternatively the lamp itself can be used as a template for hole positioning.
- Drill a further hole for the cables to pass through. Ensure there are no sharp edges to cut or chafe the cables.
- Assemble the four mounting spacers into the gasket and fit it to the lamp.
- Connect the cables as per the table below and test that the lamp functions correctly.
- Fasten the lamp to the mounting surface using the four stainless steel screws supplied with the lamp (Max. 2.5 Nm torque).
- Mount the four screw caps until they are flush with the lens surface.

### Mounting in Single, Double and Triple Chamber Housings (using Retro-fit Kit P/N 9.2361.09)

- Remove existing lamp from the housing.
- Connect cables inside existing lamp housing as per table below and test that the lamp functions correctly.
- Ensure there are no sharp edges to cut or chafe the cables.
- Ensure drain holes in the housing are clear.
- Fasten the lamp into the housing using the four stainless steel screws supplied with the kit (Max. torque 2.5 Nm).
- Mount the four screw caps until they are flush with the lens surface.

Note: The gasket and mounting spacers are not required when mounting the lamp in a housing.

**General Dimensions** (in millimetres)




### Wiring Colour Coding

Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.
HELLA recommends wire connections be soldered, and heat shrink tubing applied to seal the joint.

| Colour | Connect to | Power Consumption |
|---|---|---|
| White | Earth (-) | - |
| Yellow | Reverse (+) | 4 watts |

**NB:** Lamp must be protected by a fuse rated at 5 amperes maximum.

# Important Notes for Installer and Vehicle Owner

### Introduction

Multivolt LED signal and marker lamps offer many advantages over conventional bulb lamps. Significantly reduced power consumption, ultra long life and high tolerance to shock and vibration make LED lamps the ideal choice for the commercial transport industry, where the cost of ownership versus the initial purchase price of the product is well understood.

### Compatibility to existing electrical systems

It is important for the installer to ascertain the compatibility of the low power consumption LED lamps with the electrical and/or electronic systems of the complete vehicle, including trailers. In most cases the reduced power consumption is beneficial by imposing less demands on the entire electrical system.
For certain functions some electrical systems rely on a set power consumption for monitoring whether, for example, a trailer is connected.

### Electromagnetic Compatibility (EMC)

This Multivolt LED lamp is an electronic device. The electrical circuits contain components that suppress possible interference, both emission as well as susceptibility, to the technical requirements for the application of the Regulatory Compliance Mark (RCM).

To avoid false signals or interference, it is standard practice that sensitive instrumentation such as ABS and Tachometers etc. are provided with direct earths.

### Protection against damage due to voltage spikes

This Multilvolt LED lamp is protected against damage from positive voltage spikes caused by events such as load dump conditions specified in ISO 7637 and contains a Transient Voltage Suppressor (TVS) designed to withstand a pulse of up to 5000 Watts.
The lamp is protected against reverse polarity connection and negative voltage spikes of up to 1000 volts.

### Electric Welding

Electric Welding may damage the LED lamps. For LED lamps, HELLA recommends the negative connection to be wired isolated from the vehicle chassis. If the lamp uses the chassis as the earth return it is recommended that this earth return is disconnected during electric welding.

## *FIT AND FORGET - BY DESIGN*

Congratulations, the product you have selected comes from ***HELLA*** - a world leader in LED lighting design.

Following the launch of the first LED automotive signal lamps in 1990, ***HELLA*** Design and Innovation continues to set new standards. ***HELLA*** innovative solutions have been incorporated into millions of lamps, engineered and tested to the most stringent standards, to suit the most demanding environmental conditions.

The cornerstone to the success of our products is our no compromise ***Fit and Forget - by Design*** philosophy which is incorporated into every step of the product life cycle.

In a world consuming finite resources at an ever faster rate, ***Fit and Forget - by Design*** is the right environmental choice that also makes perfect economic sense to customers that consider the total life cycle Cost of Ownership.

*For general comments about HELLA's products please contact us on E-mail at techfeedback@hella.co.nz*