



APPLICATION AND MOUNTING INSTRUCTIONS

DuraLED® Combi-SR Rear Combination Lamp
STOP / REAR POSITION / INDICATOR / REVERSE LAMP WITH REFLECTOR
Multivolt (Suitable for 12 and 24 volt systems)

Features Include:

- | | |
|---|--|
| DuraLED® Combi = Fully sealed against salt-water submersion | DuraLED® Combi = Reverse polarity protected |
| DuraLED® Combi = Stop, Rear Position, Indicator and Reverse functions in a single lamp | DuraLED® Combi = Low power consumption |
| DuraLED® Combi = Vibration and shock resistant | DuraLED® Combi = Manufactured from the latest "high tech" materials with enhanced impact and chemical tolerance |
| DuraLED® Combi = Ultra long service life | DuraLED® Combi = Enhanced transient spike protection |
| DuraLED® Combi = Ultra fast response time | |

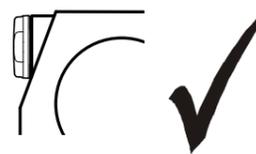
Lens Marking and ADR 13/00 Installation Requirements

This lamp identified by lens marking 0710 and the logo, was manufactured to comply with:

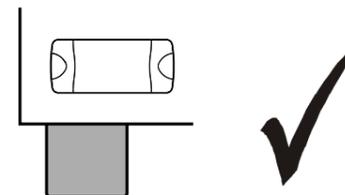
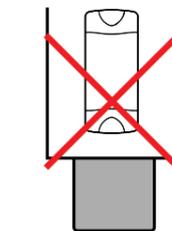
- ADR 1/00 Reversing Lamps
- ADR 6/00 Category 2a Rear Direction Indicator Lamps
- ADR 47/00 Reflex Reflector
- ADR 49/00 Rear Position (Side) / Stop Lamps
- A tolerance of +/-3° applies on all mounting details.
- Lamp mounting surface must be vertical to the ground, and at right angles to the longitudinal axis of the vehicle.
- Lamp must be visible from 45° inboard and 80° outboard, as well as from 15° above and below the horizontal axis.
- Lamp is approved to be mounted horizontally only

Please refer to ADR 13/00 for more details.

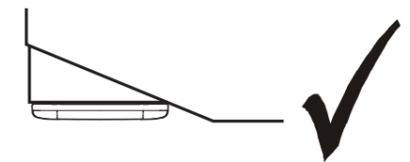
Side View



Rear View



Top View



LENS IDENTIFICATION NUMBER: 0710

| CATALOGUE NUMBER | ENGINEERING NUMBER | CRN NUMBER | COMPLIANCE NUMBER | ADR 51/00 GLOBE | ADR APPLICABLE |
|------------------|--------------------|---|--|---|---|
| 2380-CS | 015 074-10 | 50199 50202 50201 50204 50198 50200 50203 | DURA-CRN-01A DURA2CRN-01A DURA-CRN-06A DURA2CRN-06A DURA-CRN-47A DURA-CRN-49A DURA2CRN-49A | N/A LED | ADR 1/00 ADR 6/00 2a ADR 47/00 ADR 49/00 |
| AMENDMENTS | | | | ADR COMPLIANCE VERIFIED Steve Jenkins & Associates Pty Ltd Optics & Radiometry Laboratory (ORLAB) | ISSUE DATE: 09/05/2019 |
| | | | | | 460 965-07 |

HELLA-New Zealand Limited, Auckland, New Zealand

INSTRUCTION SHEET

for: **2VP 015 074-1xx / 2380-CS**



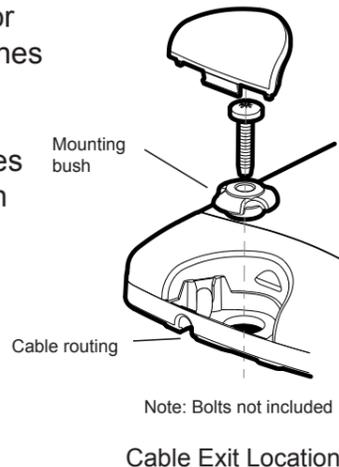
Lamp Mounting Instruction

Screw Cap Removal

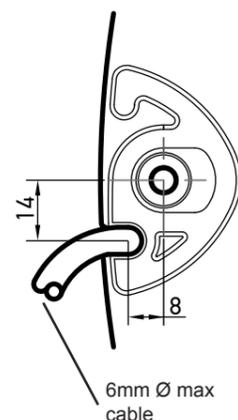
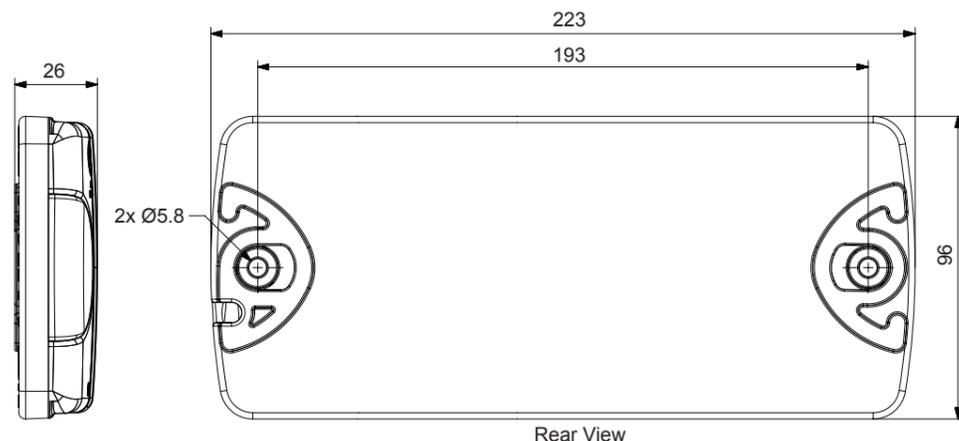
Carefully insert a small flat blade screwdriver between the cap and the lens and pull towards the lens, the cap will clip off. To install the cap push in by hand until the top is flush with the lens.

Surface Mounting

- Drill two holes up to 6.5mm Ø at 193mm centres. 6mm Ø screws or bolts are recommended to mount the lamp using the mounting bushes provided.
- Lamp should be mounted on a flat surface.
- If passing the cable through a hole, ensure there are no sharp edges to cut or chafe the cable. Alternatively, cable can be routed through the end of the base.
- Connect lamp as per chart below.
- Try to keep the cable as long as possible, preferably join the cable inside a sealed cable junction box.
- Clip the screw caps on securely until flush with the lamp surface.



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 (-) | - |
| Red | Stop (+) | 5 watts |
| Brown | Rear Position (+) | 1.5 watts |
| Green | Indicator & HCS Trigger Pulse (+) | 6 watts |
| Pink | Reverse (+) | 2 watts |

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

Direction Indicator Lamps with HCS trigger pulse work in conjunction with HCS / ISO 13207-1 compliant failure detection systems. If additional lamps are fitted beyond the amount supported by the HCS / ISO 13207-1 compliant failure detection system then they must be wired separately so as not to be detected.

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. Operation of this lamp using alternating current or modulated direct voltage will cause premature light failure. HELLA recommends connecting ADR or ECE certified Multivolt LED signal and marker lamps to a continuous (unmodulated) 12V or 24V power supply to ensure safe light operation.

Bulb failure monitoring for indicator lamps

The indicator bulb failure warning (if fitted to the vehicle) relies on the full load of a 21-watt bulb in most cases. LED lamps with trigger pulse have integrated electronics for failure checking, if operating correctly the lamp will pulse a resistive load during the flasher "on" cycle to simulate this load. If the vehicle manufacturer does not guarantee indicator bulb failure control via the vehicle wiring system than Hella can supply electronic control and flasher units which make it possible to convert the indicator failure system to suit LED lamps with trigger pulse.

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 limits prescribed in UNECE Vehicle Regulation No. 10. 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 Multivolt LED lamp is protected against damage from positive voltage spikes caused by events such as load dump conditions specified in ISO 16750-2 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