INSTRUCTION SHEET

for: **2SD 980 603-601 / 2381**

ADR - APPLICATION AND MOUNTING INSTRUCTIONS

DuraLED® Combi STOP / REAR POSITION / INDICATOR LAMP

Multivolt (Suitable for 12 and 24 volt systems)

Features Include:

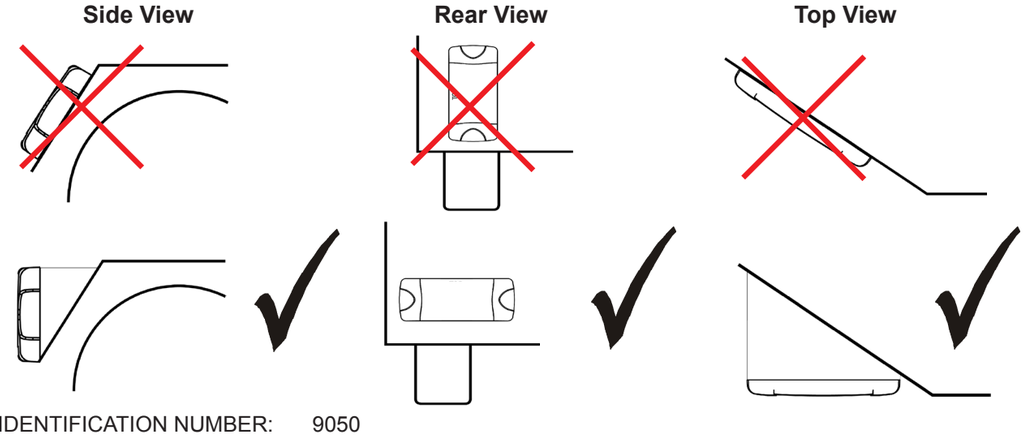
- **DuraLED® Combi** = Fully sealed against salt-water submersion
- **DuraLED® Combi** = Stop, Rear Position and Indicator functions in a single lamp
- **DuraLED® Combi** = Vibration and shock resistant
- **DuraLED® Combi** = Ultra long service life
- **DuraLED® Combi** = Ultra fast response time
- **DuraLED®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

Lens Marking and ADR 13/00 Installation Requirements

This lamp identified by lens marking 9050 and the HELLA logo, was manufactured to comply with:
ADR 49/00 Rear Position (Side) / Stop Lamps
ADR 6/00 Category 2a Rear Direction Indicator 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.
Note: Lamp does not include a reflex reflector.



LENS IDENTIFICATION NUMBER: 9050

CATALOGUE NUMBER	ENGINEERING NUMBER	CRN NUMBER	COMPLIANCE NUMBER	ADR 51/00 GLOBE	ADR APPLICABLE
2381	980 603-60	43630 43631 & 43632	DI*2380*A RP*2380*A / ST*2380*A	N/A LED	ADR 6/00 2a ADR 49/00

AMENDMENTS			ADR COMPLIANCE VERIFIED	ISSUE DATE:
				05/2012
				958 780-34

Hella-New Zealand Limited, Auckland

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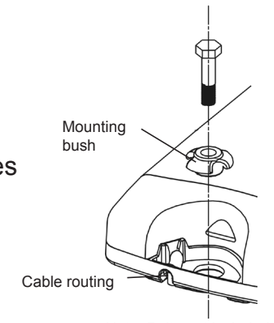
Lamp Mounting Instruction

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.

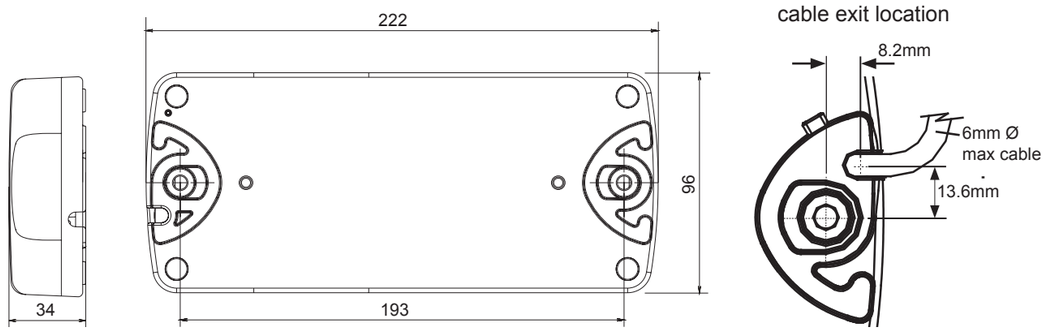
Surface Mounting

- 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.



Note: Bolts not included

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 watt
Blue	Indicator (+)	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.

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.

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 Multivolt 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 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 product please contact us on E-mail at techfeedback@hella.co.nz