



INSTRUCTION SHEET
for: **Part No. 2SD 959 050-xx**



**APPLICATION AND
MOUNTING INSTRUCTIONS**

DuraLed® Combi STOP / TAIL / INDICATOR LAMP
Multivolt (Suitable for 12 and 24 volt systems)

Features Include:

- *DuraLed® Combi* = Fully sealed against salt-water submersion
- *DuraLed® Combi* = Stop, Tail and Indicator function 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" acrylic with enhanced impact and chemical tolerance
- *DuraLed® Combi* = Enhanced transient spike protection

Lens Marking and Installation Requirements

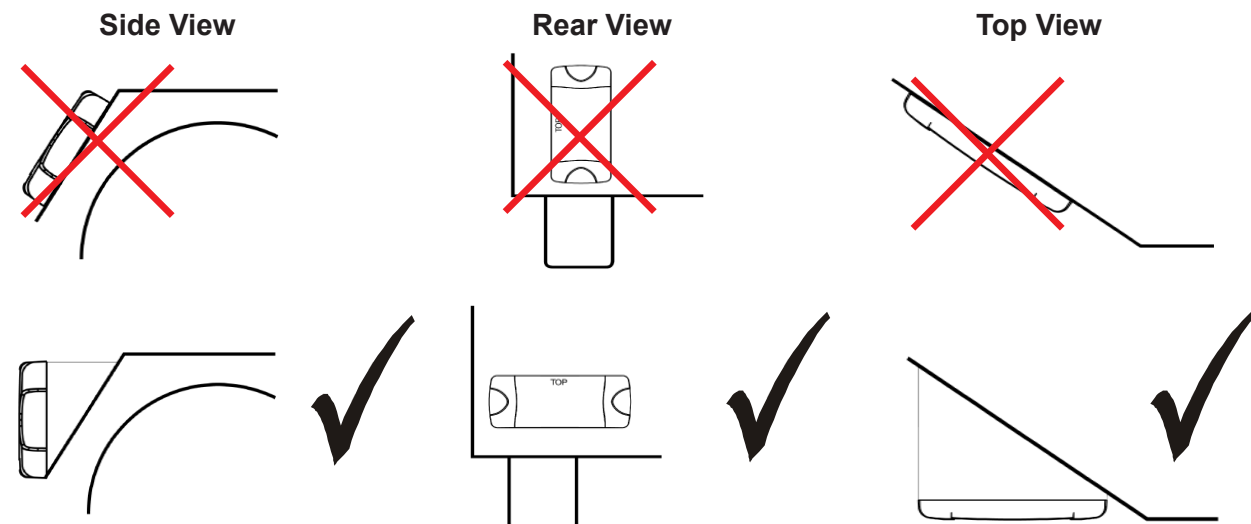
This Combination Stop/Tail/Indicator Lamp, identified by the lens marking 02 R-S1 01 2a  10176 and the  logo was manufactured to comply with ECE regulation 7 Rear Position (side) Stop Lamp and ECE regulation 6 Catagory 2a Rear Direction Indicator Lamps.

A tolerance of +/-3 degrees 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

Note: Lamp does not include a reflex reflector.

Lamp Mounting



HELLA-New Zealand Limited, Auckland

18.04.2004 10:07

HL8-TLL

Nr. 9024 S. 8



Hella New Zealand

Typbezeichnung: 2SD 959 050

Gehört zur G. Nr.: E4 10176

Anbauanweisung Nr.:

Schluss-Bremsleuchte mit Fahrtrichtungsanzeiger

Leichtquelle: 40 nicht austauschbare Leuchtdiode

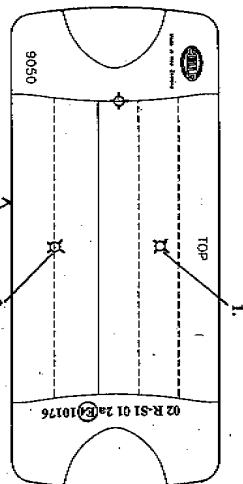
- 1. Schlussleuchte: 8 LED's
- 2. Fahrtrichtungsanzeiger: 16 LED's

⌘ = Bezugspunkt nach den ECE-Regelung 6 und 7.

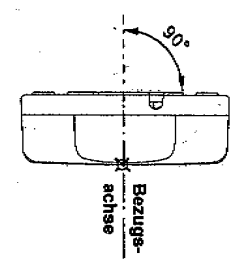
⌘ = Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EWG bzw. ECE-Regelung Nr. 48. Markierung siehe auf der Abschluss-Scheibe. Maße siehe Anlage A.

Bezugsachse: Parallel zur Fahrzeuglängsachse und parallel zur Fahrbahn. Linksanbau der Leuchte dargestellt.

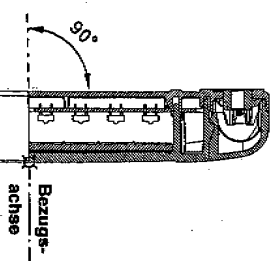
Ansicht von vorn



Ansicht von der Seite



Ansicht von oben



parallel zur Fahrbahn



Prüfspannung: 13,5 bzw. 28 Volt

Versorgungsspannung: 8 bis 28 Volt

Memleistung: 13,5 bzw. 28 Volt

Schlussleuchte: 5 Watt

Fahrtrichtungsanzeiger: 1 Watt

Fahrtrichtungsanzeiger: 5 Watt

Der An- bzw. Einbau der Geräte hat nach anliegenden An- bzw. Einbauunterlagen (z.B. Skizze und Anlage A) zu erfolgen.



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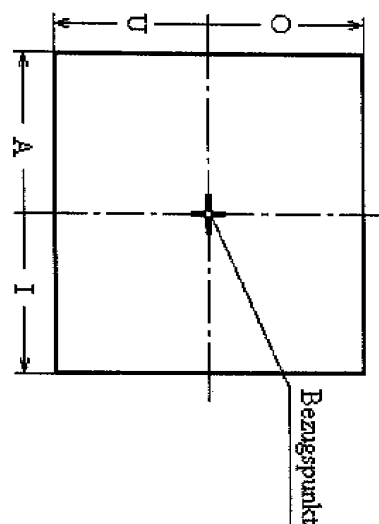
Typbezeichnung: 2SD 959 050

Anlage A

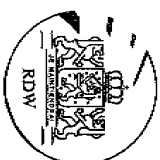
Gehört zur G. Nr.: E4 10176

Anbauanweisung Nr.:

Bestimmung der Grenzen der leuchtenden Fläche einer Leuchte gemäß den Richtlinien des Rates der Europäischen Gemeinschaften "Anbau von Beleuchtungs- und Lichtsignalanrichtung" nach 76/756/EWG bzw. ECE-Regelung Nr. 48, Absatz 2.9.2..



| Gerätebezeichnung | Obere Grenze (O) mm | Untere Grenze (U) mm | Außere Grenze (A) mm | Innere Grenze (I) mm |
|------------------------|---------------------|----------------------|----------------------|----------------------|
| Schlussleuchte | 24 | -10 | -12 | 124 |
| Bremsleuchte | 38 | 4 | -12 | 124 |
| Fahrtrichtungsanzeiger | -12 | 40 | -11 | 125 |



2004-09-21

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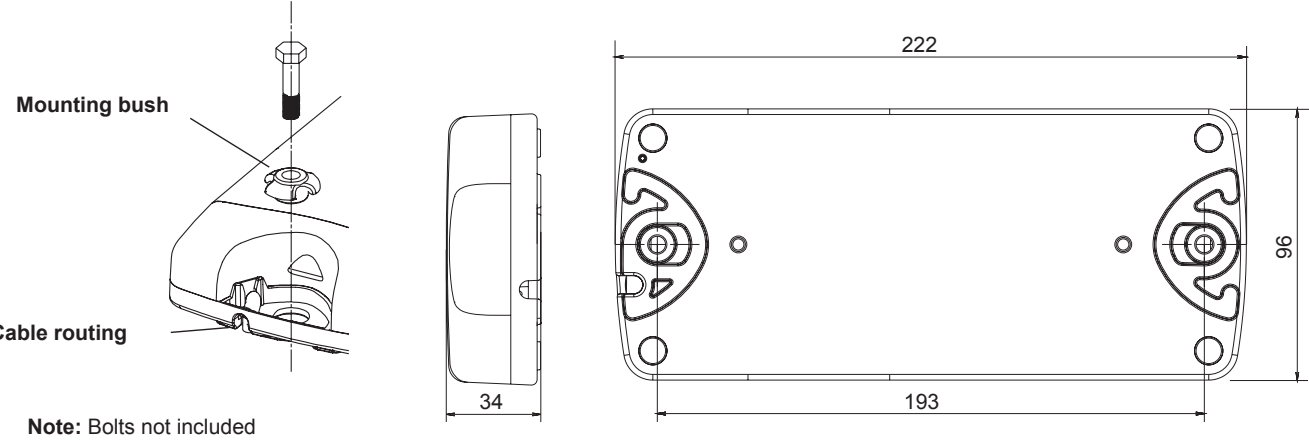
Screw Cap Removal

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 millimeters)



Wiring Colour Coding

Note: Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.

| Colour | Connect to | Power Consumption |
|--------|--------------|-------------------|
| White | Earth (-) | - |
| Red | Stop (+) | 6 watts |
| Brown | Tail (+) | 1 watt |
| Blue | Indicator(+) | 5 watts |

Important Notes for Installer and 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 the 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 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 up to severity level 3 of ISO 7637-2 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.