Important Notes for Installer and Vehicle Owner

Introduction
This LED lamp offers many advantages over conventional bulb lamps. Significantly reduced power consumption, ultra long life and high tolerance to shock and vibration make these HELLA LED lamps an outstanding investment into your safety.

Daytime Running Lamps
Daytime running lamps are not a substitute for dipped beam headlights at dusk/dawn or during darkness. It is important for the installer to check that the daytime running lamps illuminate only when the vehicle lighting is switched OFF and the ignition is switched ON.

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. In most cases the small additional power consumption of the daytime running lamp will not impose significant demands to the electrical system of the vehicle.

Electromagnetic Compatibility (EMC)
This LED lamp in 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). Additionally the electrical circuits conform to the limits prescribed in UNECE Vehicle Regulation No. 10.

Protection against damage due to voltage spikes
This LED lamp is protected against damage from positive voltage spikes caused by events such as load dump conditions specified in ISO 7637-2.
The lamp is protected against reverse polarity connection and reverse voltage spikes up to minus 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*

INSTRUCTION SHEET
for: ***Part No. 5617-OE24V / 2PT 980 670-941***

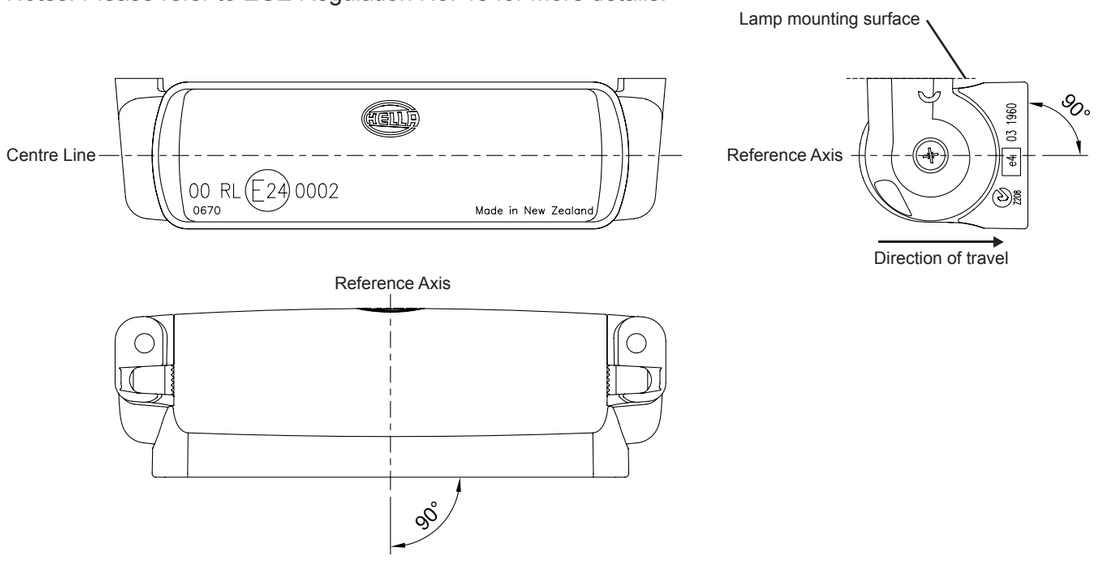
APPLICATION AND MOUNTING INSTRUCTIONS

LED DAYTIME RUNNING LAMP (DRL) KIT
24V DC Only

Lens Marking and Installation Requirements
This lamp, identified by lens marking E24 0002 and the HELLA logo was manufactured to comply with ECE Regulation No. 87 for Daytime Running Lamp.

- The reference axis of the lamp must be parallel to the longitudinal axis of the vehicle (i.e. The lens of the lamp should be vertical to the ground and perpendicular to the direction of travel).
- The centre line of the lamp must be parallel to the ground.
- Lamp must be visible from 20° inboard and outboard, as well as from 10° above and below the horizontal axis.
- Two lamps are required for motor vehicles.
- Lamps must be mounted no less than 250 mm and no more than 1500 mm above the ground.
- Lamps should not be mounted closer than 600 mm together (400 mm if vehicle width is less than 1300 mm).

Notes: Please refer to ECE Regulation No. 48 for more details.



LENS IDENTIFICATION NUMBER: 00 RL E24 0002

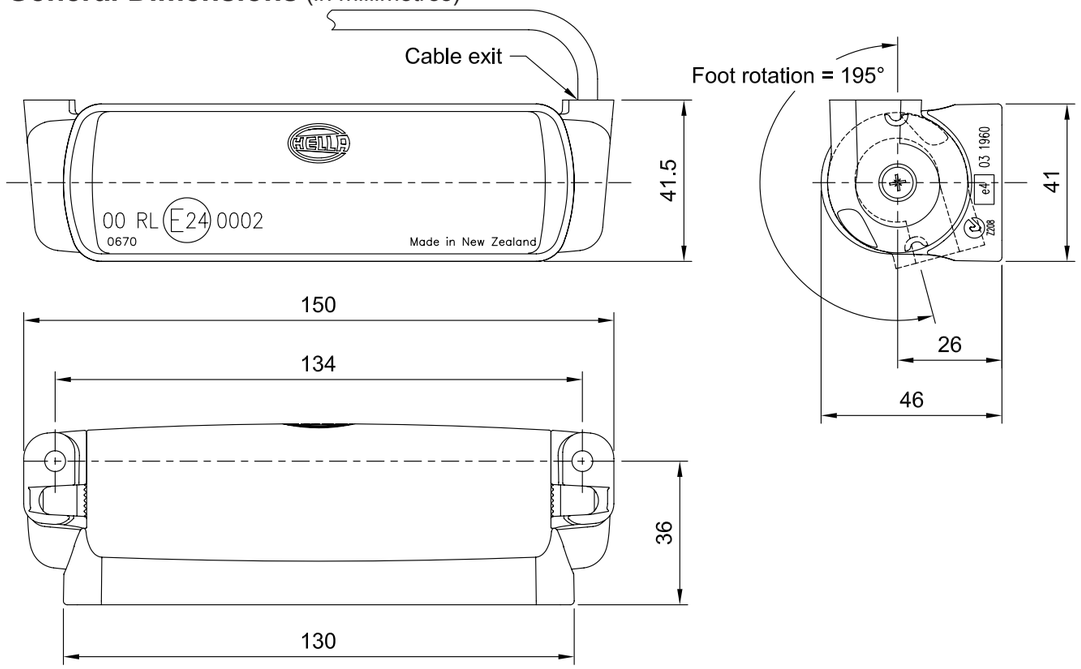
Product Contents

Daytime Running Lamp with 2.5 m cable	x2
DRL Foot A	x2
DRL Foot B	x2
Stainless Steel DRL Foot Fastening Screw	x4
Stainless Steel DRL Mounting Bolt, Nut & Washer	x4
Application and Mounting Instructions	x1

980 703-48 V06

HELLA-New Zealand Limited, Auckland.

General Dimensions (in millimetres)



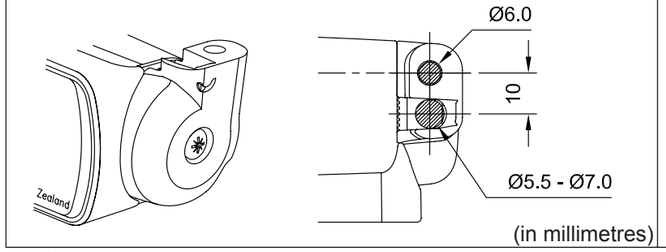
Foot Assembly

- DRL Foot A, marked with an "A" on the inside, can be assembled to the cable end of the lamp.
- DRL Foot B, marked with an "B" on the inside, can be assembled to the opposite end of the lamp.
- The DRL Feet can be rotated from 0° to 195° in 5° increments to suit mounting surfaces that are not horizontal in their orientation. See General Dimensions above.
- Once the DRL Feet are in the desired location, tighten the Foot Fastening Screws until they are secure (maximum torque of 1.5Nm).

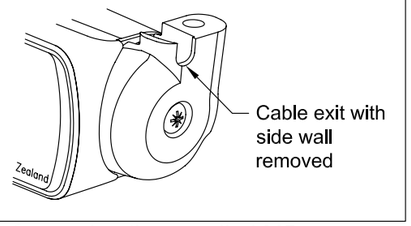
Mounting and Cable Routing

- Drill two 6 mm Ø mounting holes at 134 mm centres through the mounting surface. See General Dimensions and Installation Requirements for correct positioning.
- There are two options to route the cable:
    1. **Cable routing though the mounting surface:** Drill a 5.5 to 7.0 mm Ø hole as per the diagram on the page opposite. Ensure that the hole has no sharp edges to cut or chafe the cable when it is fed through the hole.
    2. **Cable routing through the DRL Foot:** Using side cutters make two vertical cuts to remove the side wall of the DRL Foot as per the diagram below.

1. Cable routing though the mounting surface



2. Cable routing though the DRL Foot



- Once the cable is routed, secure the lamp to the mounting surface using the supplied M5 screws, washers and nuts.

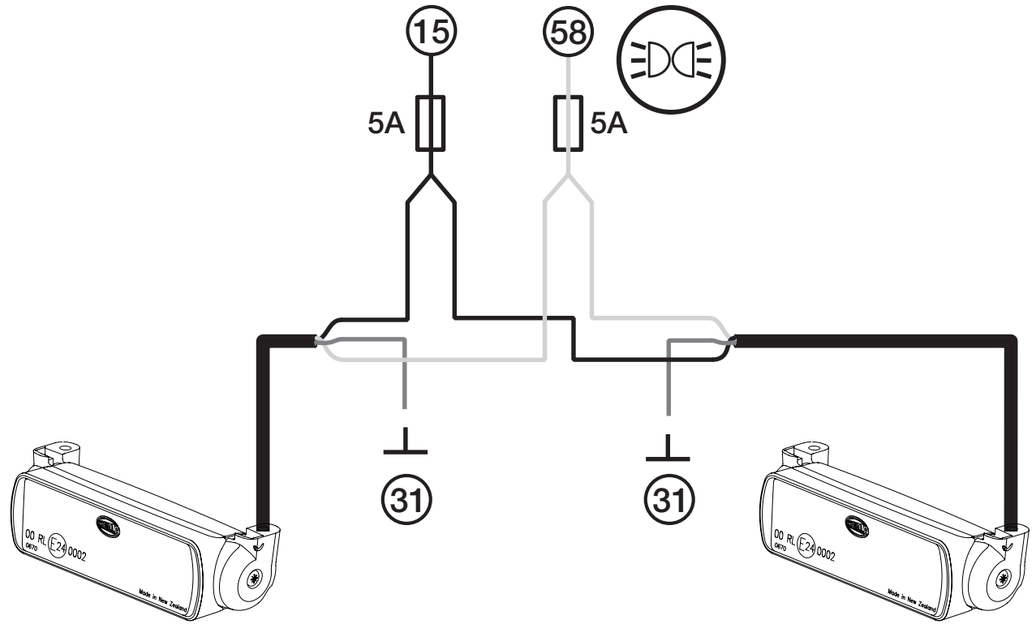
INSTRUCTION SHEET
for: **Part No. 5617-OE24V / 2PT 980 670-941**

Wiring Instructions

- This LED lamp will illuminate when the supply voltage (+) is applied to the BLACK wire. The lamp will automatically switch OFF when power (+) is applied to the GREY cable when the vehicle's lighting is switched ON.

Colour	Connect to	Function	Power Consumption
Brown	Terminal (31): Earth (-)	-	-
Black	Terminal (15): Ignition (+)	DRL ON	3 watts
Grey	Either, Terminal (58): Front Position Lamp (+) Or, Terminal (56): Headlamp - Dipped Beam (+)	DRL OFF	-

Note 1: Lamp must be protected by a fuse rated at 5 amperes maximum.
Note 2: Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.



NSAI Certification

ECE TYPE-APPROVAL CERTIFICATE

Communication concerning approval extended of a type of daytime running lamp pursuant to Regulation No. 87.

E24

Approval No: ***E24 87R-000002.*** Extension No: ***01.***

Reason(s) for extension:

- ***Modification of information folder***
- ***Modification of manufacturers representative***
- ***Addition of two new versions***
- ***Further series of tests***

1. Trade name or mark of the device: ***HELLA***
2. Manufacturer's name for the type of device: ***2PT 980 670***

   Versions: ***-2PT 980 670***
   -2PT 980 670-12V
   -2PT 980 670-24V
3. Manufacturer's name and address: ***Hella New Zealand Limited***
   81-83 Ben Lomond Crescent,
   Pakuranga, Auckland,
   New Zealand
4. If applicable, name and address of manufacturer's representative: ***Hella KGaA Hueck & Co.***
   Rixbecker Straße 75
   D-59552 Lippstadt
   Germany
5. Submitted for approval on: ***As before and 06.08.2010***
6. Technical service responsible for conducting approval tests: ***FAKT S.r.l,***
   Via Lithos, 53,
   I-25086 Rezzato (BS),
   Italy.
7. Date of test report issued by that service: ***As before and 02.09.2010***
8. Number of report issued by that service: ***IT09/0645-01***

9. Concise description:

   By category of lamp: ***RL.***
   Number, category and kind of light source(s): ***12-LEDs***

   Voltage and wattage: ***-2PT 980 670: 9V-33V, 2W***
   -2PT 980 670-12V: 12V, 3W
   -2PT 980 670-24V: 24V, 3W

   Application of an electronic light source control gear:
   -being part of the lamp (yes/no): ***No***
   -being not part of the lamp (yes/no): ***No***

   Input voltage supplied by an electronic light source control gear: ***N/A.***

   Electronic light source control gear manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body): ***N/A.***

   Geometrical conditions of installation and relating variations, if any: ***Reference axis parallel to the median longitudinal plane of the vehicle and parallel to the bearing plane of the vehicle on the road (see drawings of the information folder).***
10. Position of the approval mark: ***See drawings of the information folder***
11. Reason(s) for extension (if applicable): ***See top of page 1 of certificate***
12. Approval ~~granted~~/extended/~~refused/withdrawn~~: ***extended***
13. Place: ***Dublin.***
14. Date: ***8th September 2010***
15. Signature:

NATIONAL STANDARDS AUTHORITY OF IRELAND
NSAI Certification
TRANSPORT DEPARTMENT

16. The following documents, bearing the approval number shown above, are available on request:
    - Technical report IT09/0645-01
    - Manufacturer's information document 09-0645-01

    Documentation: ***30 pages.***

NSAI, 1 Swiftsquare, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Mounting Instruction
Anbauanweisung

Hella New Zealand

Type: *Typ:* **2PT 980 670**

LI-K Ke
☎ 31485
06.08.2010

Belongs to approval no.: **E24 0002 and E24 0044**
Gehört zu Gen.-Nr.:

Daytime Running Lamp (E24 0002) or Front Position Lamp (E24 0044) optionally reciprocally incorporated for Automobile.
Tagfahrleuchte (E24 0002) oder Begrenzungsleuchte (E24 0044) wahlweise ineinandergebaut für Kraftfahrzeuge.

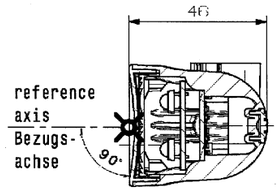
Light source(s): *Lichtquelle(n):*		**Design voltage:** *Prüfspannung:*	**Nominal voltage:** *Nennspannung:*	**Nominal power:** *Nennleistung:*
Daytime Running Lamp: *Tagfahrleuchte:*	**12 LED**	**13.5 V or 28.0 V**	**12 V or 24.0 V**	**3.0 W**
Front Position Lamp: *Begrenzungsleuchte:*	**12 LED**	**13.5 V or 28.0 V**	**12.0 V or 24.0 V**	**1.0 W**

⌑ = **Centre of reference in accordance with the ECE-Regulation - No. 7 and 87.**
Bezugspunkt nach den ECE-Regelungen - Nr. 7 und 87.

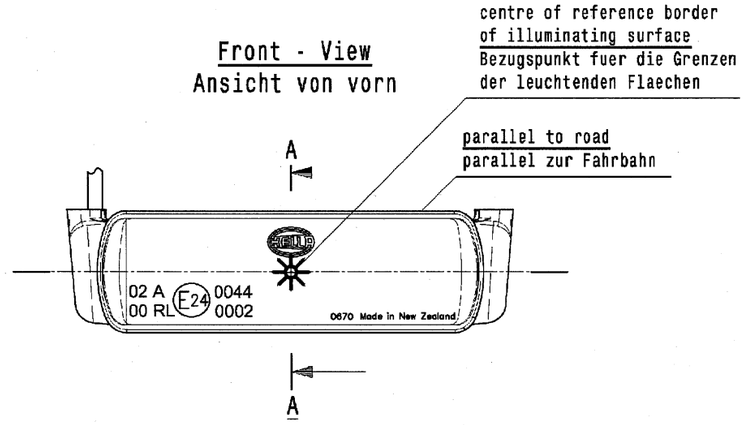
✧ = **Centre of reference for the definition for illuminating surface in accordance with the Council Directive 76/756 EEC or ECE-Regulation No. 48 (see Annex A).**
Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EWG bzw. ECE-Regelung Nr. 48. Markierung s. auf der Abschluss-Scheibe. Maße s. Anlage A.

Axis of reference: **Parallel to the car centre line and parallel to the road.**
Bezugsachse: *Parallel zur Fahrzeuglängsachse und parallel zur Fahrbahn.*

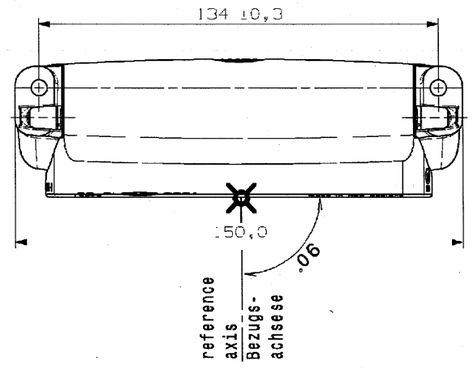
Side - View / section cut A-A
Ansicht von der Seite / Schnitt A-A



Front - View
Ansicht von vorn



Top - View
Ansicht von oben



All dimensions are in mm

The device must be mounted according to the enclosed fitting documents (e. g. sketch + Annex A).
Der An- bzw. Einbau der Geräte hat nach anliegenden An- bzw. Einbauunterlagen (z. B. Skizze und Anlage A) zu erfolgen.

Annex A
Anlage A

Hella New Zealand

Type: *Typ:* **2PT 980 670**

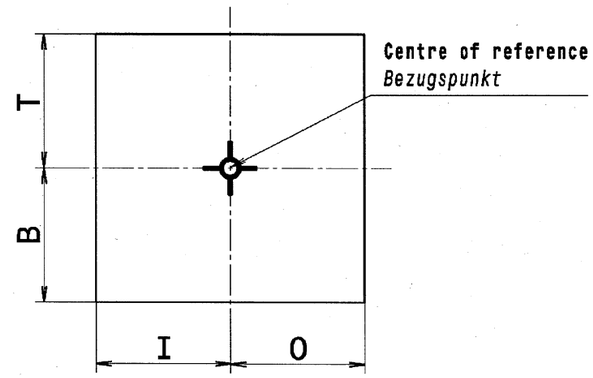
LI-K Ke
☎ 31485
06.08.2010

Belongs to approval no.: **E24 0002 and E24 0044**
Gehört zu Gen.-Nr.:

Daytime Running Lamp (E24 0002) or Front Position Lamp (E24 0044) optionally reciprocally incorporated for Automobile.
Tagfahrleuchte (E24 0002) oder Begrenzungsleuchte (E24 0044) wahlweise ineinandergebaut für Kraftfahrzeuge.

Determining the borders of the illuminated area of lamp in accordance with the Directives of the Council of the European Community on "Mounting of lamps and light signalling equipment" 76/756 EEC and ECE-Regulation No. 48, sub-section 2.9.2..

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



Category of Lamp *Gerätebezeichnung*	**Top edge** *Obere Grenze* **(T) mm**	**Bottom edge** *Untere Grenze* **(B) mm**	**Inner edge** *Innere Grenze* **(I) mm**	**Outer edge** *Äußere Grenze* **(O) mm**
Daytime Running Lamp *Tagfahrleuchte*	**13**	**13**	**50**	**50**
Front Position Lamp *Begrenzungsleuchte*	**13**	**13**	**50**	**50**

The device must be mounted according to the enclosed fitting documents (e. g. sketch + Annex A).
Der An- bzw. Einbau der Geräte hat nach anliegenden An- bzw. Einbauunterlagen (z. B. Skizze und Anlage A) zu erfolgen.