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 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. 2PT 980 670-601/2PT 980 670-861***

APPLICATION AND MOUNTING INSTRUCTIONS

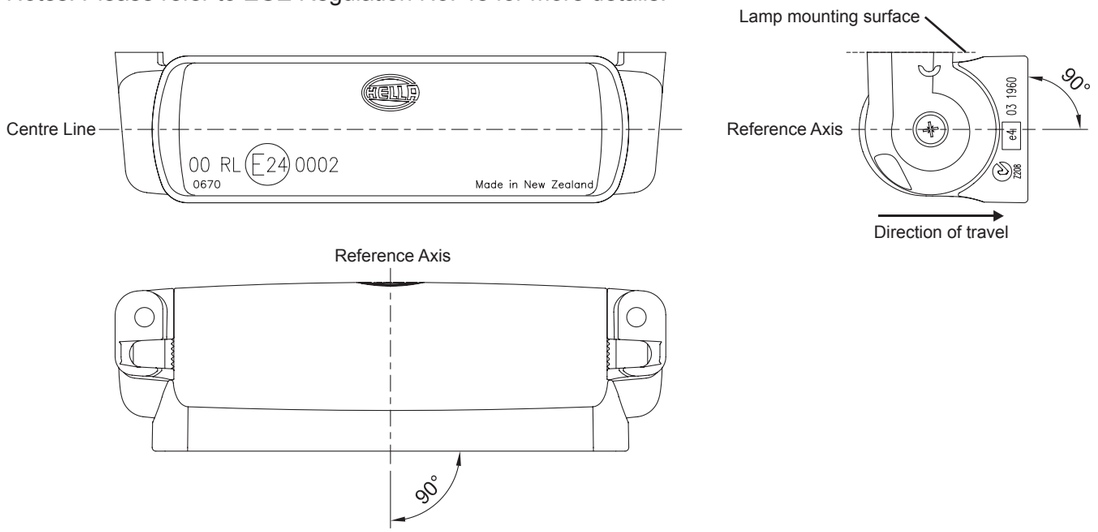
LED DAYTIME RUNNING LAMP (DRL)
24V DC Only

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

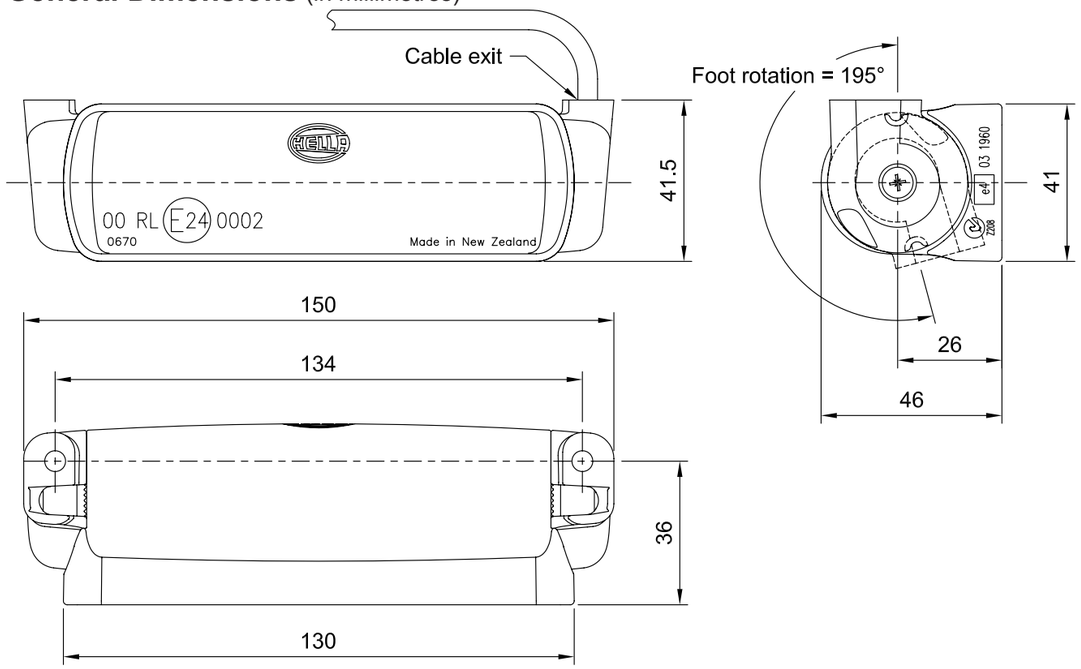
	2PT 980 670-601	2PT 980 670-861
Daytime Running Lamp with 0.5 m cable	x1	x2
DRL Foot A	x1	x2
DRL Foot B	x1	x2
Stainless Steel DRL Foot Fastening Screw	x2	x4
Stainless Steel DRL Mounting Bolt, Nut & Washer	x2	x4
3-Pole Super Seal Socket Connector	x1	x2
Insulated Crimp Terminal Cable Connector	-	x3
Vehicle Cable Loom	-	x1
Application and Mounting Instructions	x1	x1

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Hella-New Zealand Limited, Auckland.

INSTRUCTION SHEET
for: ***Part No. 2PT 980 670-601/2PT 980 670-861***

General Dimensions (in millimetres)



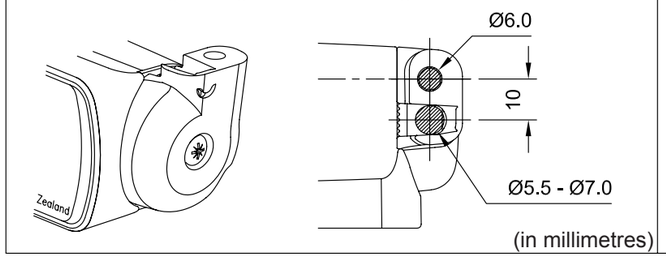
Foot Assembly

- 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).

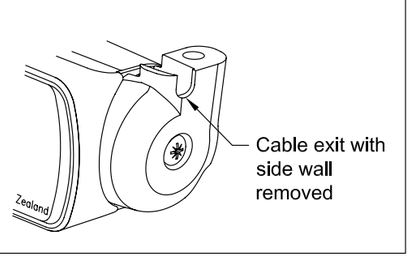
Mounting and Cable Routing

- 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



INSTRUCTION SHEET
for: ***Part No. 2PT 980 670-601/2PT 980 670-861***

Mounting and Cable Routing (cont..)

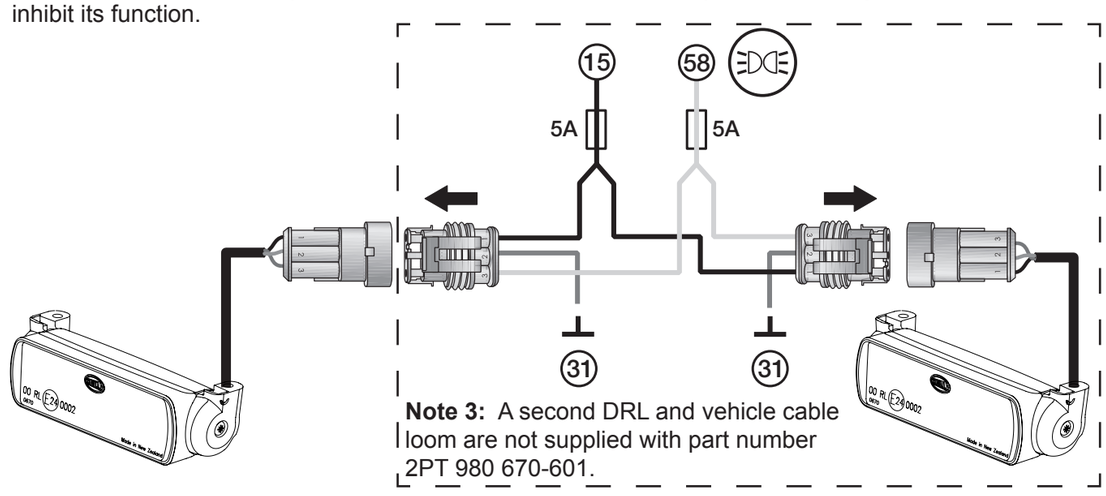
- The kit (P/N: 2PT 980 670-861) is supplied with a spliced cable loom for connecting the DRLs to the electrical system of the vehicle. This loom has two leads of unequal length (2700 mm & 1800 mm) to suit the spacing of the DRLs at the front of the vehicle, and to allow routing down one side of the vehicle for connection to the electrical system.
- Once the cable is routed, secure the lamp to the mounting surface using the supplied M5 screws, washers and nuts.

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	Connector Location	Connect to	Function	Power Consumption
Brown	Pin 2	Terminal (31): Earth (-)	-	-
Black	Pin 1	Terminal (15): Ignition (+)	DRL ON	3 watts
Grey	Pin 3	Either, Terminal (58): Front Position Lamp (+) Or, Terminal (56): Headlamp - Dipped Beam (+)	DRL OFF	-

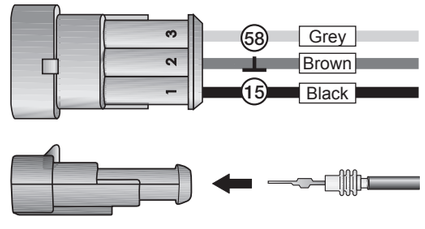
Note 1: Lamps must be protected by a fuse rated at 5 amperes maximum.
Note 2: Lamps are polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.



Note 3: A second DRL and vehicle cable loom are not supplied with part number 2PT 980 670-601.

Super Seal Connector Assembly

- The lamp has been pre-assembled with terminals and seals to suit the supplied 3-Pole Super Seal Connector.
- Hella recommends that the terminals are assembled into the connector in the configuration shown to the right to match the supplied vehicle cable loom.
- Once the configuration is confirmed, push the terminals firmly until they click into place.



Note 4: Always confirm the terminal configuration before assembling the connector as the Hella recommendation might not suit some installations, particularly if retrofitting the lamp to an existing DRL installation.
Note 5: Please contact your Hella supplier if matching Super Seal plug connectors, terminals and seals are required.

Mounting Instruction
Anbauanweisung

Hella New Zealand

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

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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.

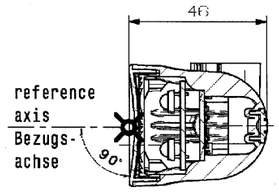
Light source(s): *Lichtquelle(n):*		**Design voltage:** *Prüfspannung:*	**Nominal voltage:** *Nennspannung:*	**Nominal power:** *Nennleistung:*
Daytime Running Lamp: *Tagfahrleuchte:*	**12 LED**	**13.5 V or 28.0 V**	**12 V or 24.0 V**	**3.0 W**
Front Position Lamp: *Begrenzungsleuchte:*	**12 LED**	**13.5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

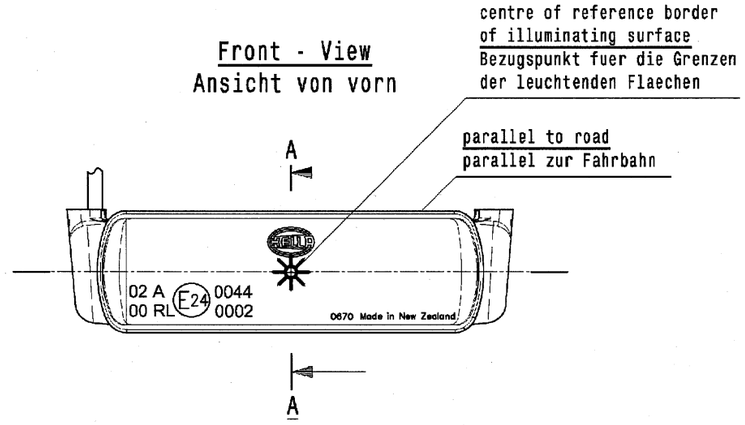
✧ = **Centre of reference for the definition for illuminating surface in accordance with the Council Directive 76/756 EEC or ECE-Regulation No. 48 (see Annex A).**
Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EWG bzw. ECE-Regelung Nr. 48. Markierung s. auf der Abschluss-Scheibe.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

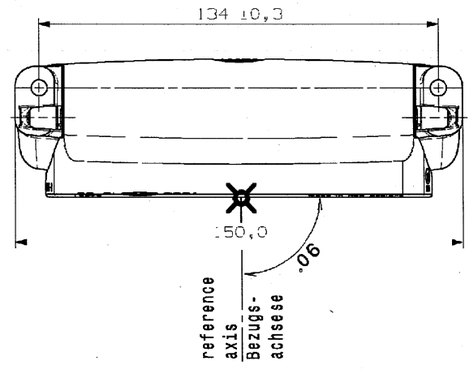
Side - View / section cut A-A
Ansicht von der Seite / Schnitt A-A



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**

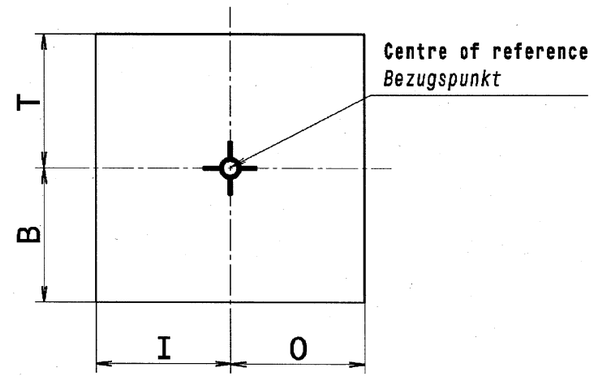
LI-K Ke
☎ 31485
06.08.2010

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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.