



ADR - APPLICATION AND MOUNTING INSTRUCTIONS
ADR 49/00 Front End-Outline Marker Lamp
ADR 49/00 Front Position (Side) Lamp

DuraLED® FRONT END-OUTLINE MARKER LAMP AND FRONT POSITION (SIDE) LAMP

Lens Marking and ADR 13/00 Installation Requirements

This Front Position/End-Outline lamp, identified by lens marking 9560 and the HELLA logo was manufactured to comply with ADR 49/00 Front End-Outline Lamps / Front Position (Side) Lamps.

- A tolerance of +/-3 degrees applies on all mounting details.
- Lamp mounting surface must be vertical to the ground and be square to the vehicle longitudinal axis
- Lamp reference axis must be horizontal

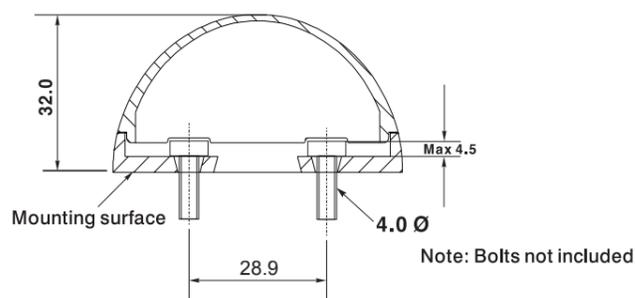
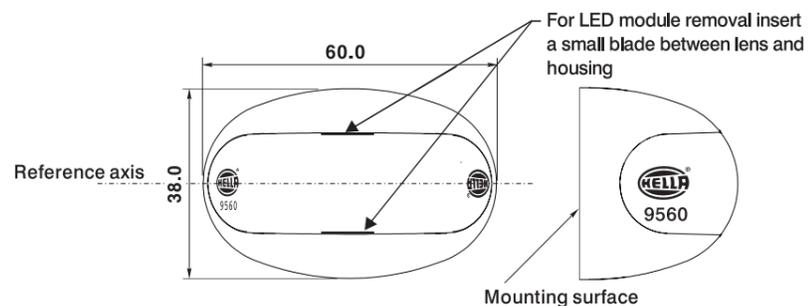
Front End-Outline Marker Lamp

- Lamp must be visible between
Horizontal angle: 0° inwards (parallel with vehicle axis) and 80° outwards
Vertical angle: 5° above and 20° below the horizontal

Front Position (Side) Lamp

- Lamp must be visible between
Horizontal angle: 45° inwards and 80° outwards
Vertical angle: 15° above and below the horizontal

Note: Please refer to ADR 13/00 for more details.



LENS IDENTIFICATION NUMBER: 9560

All dimensions in millimetres

CATALOGUE NUMBER	ENGINEERING NUMBER	CRN NUMBER	COMPLIANCE NUMBER	ADR 51/00 GLOBE	ADR APPLICABLE
2054-GMD	2PF 959 570-50	40677	8-2054XTR-17	N/A LED	ADR 49/00

AMENDMENTS			ADR COMPLIANCE VERIFIED	ISSUE DATE:
02/2009	08/2010	01/2011		11/08
				959 150-80

HELLA-New Zealand Limited, Pakuranga



ADR - APPLICATION AND MOUNTING INSTRUCTIONS
ADR 49/00 Front End-Outline Marker Lamp
ADR 49/00 Front Position (Side) Lamp

DuraLED® FRONT END-OUTLINE MARKER LAMP AND FRONT POSITION (SIDE) LAMP

Lens Marking and ADR 13/00 Installation Requirements

This Front Position/End-Outline lamp, identified by lens marking 9560 and the HELLA logo was manufactured to comply with ADR 49/00 Front End-Outline Lamps / Front Position (Side) Lamps.

- A tolerance of +/-3 degrees applies on all mounting details.
- Lamp mounting surface must be vertical to the ground and be square to the vehicle longitudinal axis
- Lamp reference axis must be horizontal

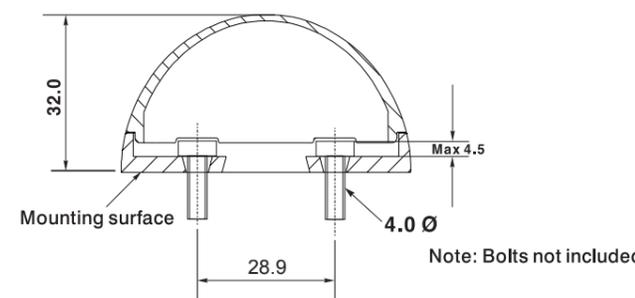
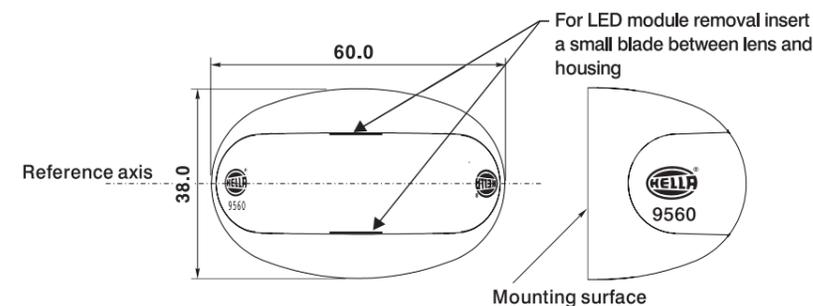
Front End-Outline Marker Lamp

- Lamp must be visible between
Horizontal angle: 0° inwards (parallel with vehicle axis) and 80° outwards
Vertical angle: 5° above and 20° below the horizontal

Front Position (Side) Lamp

- Lamp must be visible between
Horizontal angle: 45° inwards and 80° outwards
Vertical angle: 15° above and below the horizontal

Note: Please refer to ADR 13/00 for more details.



LENS IDENTIFICATION NUMBER: 9560

All dimensions in millimetres

CATALOGUE NUMBER	ENGINEERING NUMBER	CRN NUMBER	COMPLIANCE NUMBER	ADR 51/00 GLOBE	ADR APPLICABLE
2054-GMD	2PF 959 570-50	40677	8-2054XTR-17	N/A LED	ADR 49/00

AMENDMENTS			ADR COMPLIANCE VERIFIED	ISSUE DATE:
02/2009	08/2010	01/2011		11/08
				959 150-80

HELLA-New Zealand Limited, Pakuranga

INSTRUCTION SHEET
for: **2PF 959 570-xxx / 2054(-GMD)**



LED Module Instructions

To remove the LED module hold the housing near the base and push firmly on the back of the module.
Note: The LED module is fully sealed and has no serviceable components.

The LED module is securely fastened to prevent dislodging in service, and removal would not normally be required. If it becomes necessary to remove the module, insert a small blade on both sides of the LED module and the housing at the correct position and prise the module free from the housing. (See diagram over page)

Lamp Mounting Instructions

4mm Ø bolts are recommended with a maximum head height of 4.5mm (not included).

Ensure the lamp is mounted on a flat surface. The housing may be used as a template for the mounting holes. Do not mount the lamp where damage is likely to be sustained due to tie-downs and other securing devices. Drill two mounting holes up to 4.5mm Ø 28.9mm apart, and mount the housing. Drill cable entry hole in the centre of the mounting holes at a recommended size of 6mm to 8mm Ø and ensure the hole has no sharp edges to chafe the cable. Push the cable through the hole and connect the wiring (see wiring instructions). Push the LED module firmly into the housing until it snaps into position.

Wiring Colour Coding

The DuraLED® marker range is multi voltage capable allowing full light output between 8 and 28 volts. LED lamps are polarity conscious. Reverse 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
Black	Earth (-)	-
White (Red trace)	Positive(+)	0.4 watts @ 12 volts 0.8 watts @ 24 volts

NB: Lamp must be protected by a fuse rated at 2 amperes maximum.

Energy saving recommendation for 24 volt systems

To derive the full benefit of the low power consumption (0.4 watts), HELLA recommends to wire pairs of DuraLED® marker lamps in series.

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.

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: **2PF 959 570-xxx / 2054(-GMD)**



LED Module Instructions

To remove the LED module hold the housing near the base and push firmly on the back of the module.
Note: The LED module is fully sealed and has no serviceable components.

The LED module is securely fastened to prevent dislodging in service, and removal would not normally be required. If it becomes necessary to remove the module, insert a small blade on both sides of the LED module and the housing at the correct position and prise the module free from the housing. (See diagram over page)

Lamp Mounting Instructions

4mm Ø bolts are recommended with a maximum head height of 4.5mm (not included).

Ensure the lamp is mounted on a flat surface. The housing may be used as a template for the mounting holes. Do not mount the lamp where damage is likely to be sustained due to tie-downs and other securing devices. Drill two mounting holes up to 4.5mm Ø 28.9mm apart, and mount the housing. Drill cable entry hole in the centre of the mounting holes at a recommended size of 6mm to 8mm Ø and ensure the hole has no sharp edges to chafe the cable. Push the cable through the hole and connect the wiring (see wiring instructions). Push the LED module firmly into the housing until it snaps into position.

Wiring Colour Coding

The DuraLED® marker range is multi voltage capable allowing full light output between 8 and 28 volts. LED lamps are polarity conscious. Reverse 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
Black	Earth (-)	-
White (Red trace)	Positive(+)	0.4 watts @ 12 volts 0.8 watts @ 24 volts

NB: Lamp must be protected by a fuse rated at 2 amperes maximum.

Energy saving recommendation for 24 volt systems

To derive the full benefit of the low power consumption (0.4 watts), HELLA recommends to wire pairs of DuraLED® marker lamps in series.

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.

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