

	ON SHEET / <b>2312</b> / 2	HELLE						
ICATION AND NSTRUCTIONS d-Outline Marker Lamp Position (Side) Lamp KER LAMP / POSITION (SIDE) LAMP (s)								
ion Requirements the I logo was manufactured to comply with Lamps. nting details. ground and be square to the longitudinal axis of the vehicle.								
vehicle axis) and 80° outwards e horizontal								
twards norizontal								
C 77 Q	Moun Moun 14.5 25 Screw head he be 3.5mm or l	eight mu		<ul> <li>For LED module removal, insert small blade between lens and housing</li> </ul>				
	COMPLIANO	E	DENTIFICATION	ADR ADR APPLICABLE				
	2312*REOM*C		N/A LED	ADR 49/00				
		ADR VERI	COMPLIANCE FIED	ISSUE DATE: 12/2013				

958 780-91

### INSTRUCTION SHEET for: 2XA 980 990-60x / 2312 / 2312-BULK



### Lamp Mounting Instructions

- Lamp should be 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 holes up to Ø5 mm at 35mm centres.
- A minimum hole size of Ø22.5 mm is required for the Deutsch 2-way socket in the backplate.
- Mount the housing using Ø4 mm screws or bolts with maximum head height of 3.5mm (not included).
- Prepare the lamp cable (not supplied) using the correct plug connector (Deutsch P/N DT06-2S), wedge (Deutsch P/N W2S) and terminals (Deutsch P/N 0462-201-16141). These Deutsch parts can be purchased separately as a kit (HELLA P/N 4960-P).
- Push the LED module firmly into the housing until it snaps into position.

### LED Module Instructions

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).

Note: The LED module is fully sealed and has no serviceable components.

### Wiring Colour Coding

The LED lamp is multi voltage capable for optimum brightness in 12 and 24 Volt systems. 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.

Pin No.	Connect to	Power Consumption
1	Positive (+)	< 1W
2	Earth (-)	-

### Energy saving recommendation for 24 volt systems

To derive the full benefit of the low power consumption HELLA recommends to wire pairs of LED side marker lamps in series.

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

### 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: 2XA 980 990-60x / 2312 / 2312-BULK

### Lamp Mounting Instructions

- Lamp should be mounted on a flat surface.
- to be sustained due to tie-downs and other securing devices. Drill two holes up to Ø5 mm at 35mm centres.

- as a kit (HELLA P/N 4960-P).
- Push the LED module firmly into the housing until it snaps into position.

### **LED Module Instructions**

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).

Note: The LED module is fully sealed and has no serviceable components.

### Wiring Colour Coding

The LED lamp is multi voltage capable for optimum brightness in 12 and 24 Volt systems. 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.

Pin No.	Connect to	Power Consumption	Ene
1	Positive (+)	< 1W	To d reco
2	Earth (-)	-	1000

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

### 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



The housing may be used as a template for the mounting holes. Do not mount the lamp where damage is likely

 A minimum hole size of Ø22.5 mm is required for the Deutsch 2-way socket in the backplate. Mount the housing using Ø4 mm screws or bolts with maximum head height of 3.5mm (not included). Prepare the lamp cable (not supplied) using the correct plug connector (Deutsch P/N DT06-2S), wedge (Deutsch P/N W2S) and terminals (Deutsch P/N 0462-201-16141). These Deutsch parts can be purchased separately

ergy saving recommendation for 24 volt systems derive the full benefit of the low power consumption HELLA ommends to wire pairs of LED side marker lamps in series.

