

## HELLA 1BL012488121

# HELLA DE/LED 90mm Performance L4060 Headlight Kit Instruction Manual

Model: 1BL 012 488-121

## 1. INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of your HELLA DE/LED 90mm Performance L4060 Headlight Kit. Please read these instructions carefully before proceeding with installation or use to ensure safe and optimal performance. This product is designed for 12V and 24V vehicle electrical systems.

## 2. SAFETY INFORMATION

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- Always disconnect the vehicle's battery before performing any electrical work to prevent short circuits and electrical shock.
- Ensure all connections are secure and properly insulated to prevent moisture ingress and corrosion.
- Do not look directly into the LED light source when it is active, as this may cause eye damage.
- Installation should be performed by qualified personnel if you are unsure about any steps.
- Verify local regulations and laws regarding vehicle lighting before installation and use.

## 3. PACKAGE CONTENTS

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Please check the package for the following components:

- 1x HELLA DE/LED 90mm Performance L4060 Headlight Module (Right side)
- Mounting hardware (screws, clips, etc.)
- Instruction Manual



**Image 3.1:** Included mounting hardware for the headlight module.

## 4. SETUP (INSTALLATION)

### 4.1 Pre-installation Checks

- Ensure the vehicle's electrical system is compatible with 12V or 24V operation.
- Confirm that the mounting location provides sufficient space and ventilation for the headlight module.
- Gather all necessary tools (screwdrivers, wire strippers, crimping tool, multimeter, etc.).

### 4.2 Mounting the Headlight Module

1. Identify the designated mounting position for the 90mm headlight module.
2. Secure the module using the provided mounting hardware. Ensure it is firmly attached and correctly oriented (e.g., right side).
3. The robust die-cast aluminum housing is designed for durability and heat dissipation.



**Image 4.1:** Front view of the HELLA DE/LED 90mm headlight module.



**Image 4.2:** Side view of the headlight module, showing the integrated electronics and product label.

### 4.3 Electrical Connection

The headlight module features a DEUTSCH plug for reliable electrical connection. Refer to your vehicle's wiring diagram for specific connection points.

1. Connect the power supply (12V or 24V) to the appropriate pins on the DEUTSCH connector.
2. Connect the control wires for the position light, daytime running light (DRL), and low beam functions.
3. Ensure all connections are tight and protected from environmental elements.



**Image 4.3:** Rear view of the headlight module, showing the DEUTSCH connector for electrical hookup.

## 5. OPERATING INSTRUCTIONS

The HELLA DE/LED 90mm Performance L4060 Headlight Kit offers three primary light functions:

- **Position Light (LED):** Provides a homogeneous ring-shaped light for vehicle visibility.
- **Daytime Running Light (LED):** Offers enhanced visibility during daylight hours with a distinctive ring-shaped illumination.
- **Low Beam (LED):** Provides primary forward illumination for driving in low-light conditions or at night.

These functions are typically controlled via your vehicle's existing lighting switches and systems. Consult your vehicle's owner's manual for specific operation of these lighting modes.

## 6. MAINTENANCE

### 6.1 Cleaning

- Clean the lens regularly with a soft cloth and mild soap solution.
- Avoid abrasive cleaners or solvents that could damage the polycarbonate lens material.

### 6.2 Inspection

- Periodically check all electrical connections for corrosion or looseness.
- Inspect the mounting points to ensure the headlight remains securely fastened.
- Verify that all light functions (position, DRL, low beam) are operating correctly.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Headlight does not illuminate	No power supply; faulty wiring; blown fuse	Check power connections; inspect wiring for damage; check vehicle's fuse box.
Intermittent operation	Loose connection; poor ground connection	Secure all electrical connections; verify ground point.
Reduced light output	Dirty lens; voltage drop	Clean the lens; check voltage at the headlight connector.

## 8. SPECIFICATIONS

Feature	Detail
Brand	HELLA
Model Number	1BL012488121
Part Number	1BL 012 488-121
Light Source Type	LED
Voltage	12V / 24V
Wattage	24 W
Light Functions	Position Light (LED), Daytime Running Light (LED), Low Beam (LED)
Diameter	90 mm
Dimensions (L x H x D)	125 mm x 126 mm x 143 mm
Lens Material	Polycarbonate

Feature	Detail
Housing Material	Die-cast Aluminum
Connector Type	DEUTSCH Plug
Vehicle Compatibility	Universal fit for Bus, Car
Electromagnetic Compatibility	Yes (EMC)

## 9. WARRANTY AND SUPPORT

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For warranty information, please refer to the documentation provided with your purchase or contact HELLA customer service. In case of technical issues or questions not covered in this manual, please reach out to your HELLA dealer or visit the official HELLA website for support.