

# What module controls the high and low beams of the headlights



## Article Overview

The high and low beams of modern vehicle headlights are primarily controlled by an electronic control unit (ECU) or a dedicated headlight control module, often integrated with LED drivers and the body control module (BCM).

### Overview of Headlight Control

In contemporary vehicles, high and low beam functions are managed electronically rather than through simple manual switches. The ECU or headlight control module receives input from the driver, sensors, or cameras and activates the appropriate headlight function accordingly. For LED headlights, the ECU communicates with LED drivers to control individual LEDs for high beams, low beams, daytime running lights, and other lighting functions.

### Automatic and Adaptive Control

Modern systems often include automatic high beam and low beam control, which uses sensors or cameras to detect ambient light and oncoming traffic. The system can automatically switch between high and low beams to improve visibility without blinding other drivers. Adaptive systems can also adjust the range, width, and direction of the beam, swiveling the headlights or controlling LED segments individually to illuminate curves or urban areas effectively.

### Components Involved...

## Article Content

Feb 09, 2026

### High Beam Assist

This system automatically switches the headlights setting to low beam from high beam when it detects a vehicle ahead. Frequent

Sep 27, 2025

### How It Works: Automatic and Adaptive Headlights (Low Beam and High Beam)

This article explores how automatic and adaptive headlights work, with a focus on both low beam and high beam

May 25, 2026

### Low Beam vs High Beam: Understanding their Functions

Learn the difference between low and high beam headlights, when to use each, and how adaptive headlight

Jul 30, 2025

### Automotive Body Control Module (BCM) Functions

Headlights: The BCM controls the operation of headlights, including low beams, high beams, daytime running lights

Oct 22, 2025

### Electronic control units in contemporary vehicles with

Structure and function of electronic control units in contemporary vehicles with LED headlamps: Design

Apr 04, 2026

### Headlight Control Module Failure Signs & Diagnosis

The headlight control module is a small electronic box that sits between your light switch and your headlight bulbs. Its job is to

Feb 03, 2026

### High Beam Low Beam headlight Wiring Diagram

It also illustrates the high-beam and low-beam bulbs alongside their multiple wires. Here's a sample high beam low

Jun 17, 2026

## Electronic control units in LED headlamps | HELLA

The HELLA LMS (LED Module Headlamp) control unit has been designed to deliver maximum flexibility thanks data

Oct 07, 2025

## Smart Headlights | How They Work—and Why We Don't Get Them Yet

The new smart headlights make automatic high beams look like antique technology, so let's take a look at what they are and why

Jun 23, 2026

## Headlights Not Working? Try These Fixes

If your headlights aren't working, check these four common problems and fixes for everything from one malfunctioning

Jul 03, 2026

## What Is a Lighting Control Module? Benefits, How to Reset, and More

The light control module (LCM) controls the different lighting systems in a car, including the headlight, tail light, turn

Oct 07, 2025

## How to flexibly configure an LED driver for automotive headlights

An ECU consists of mainly LED drivers for headlight functions such as high beams, low beams, daytime running lights, position

May 15, 2026

## How to Know Which Fuse Is for the Headlights?

Is There a Fuse for Low Beam Lights? That's right, low beams do have their own separate fuse. So if your low beams

Dec 31, 2025

## Electronic control units in contemporary vehicles with LED headlamps

The HELLA LMS (LED Module Headlamp) control unit has been designed to deliver maximum flexibility thanks data

Apr 29, 2026

## Headlight Circuit Evolution

Headlight Circuit Evolution In sealed-beam headlamps, which have been part of the automotive landscape for decades, the filament

Mar 13, 2026

### Intelligent headlight control

High beam control improves driver visibility at night by automatically controlling the on/off function of the vehicle high beams through

Aug 12, 2025

### Understanding The Importance Of Headlight Control

A headlight control module (HCM) is an electronic control unit that regulates the operation of headlights in a vehicle. It

Sep 09, 2025

### Low Beam vs High Beam

Learn about the key differences between low-beam and high-beam headlight functions. What are the differences,

Jun 02, 2026

### What are High Beam Headlights?

In contrast, dipped beam headlights are your normal night-driving lights and emit an asymmetrical beam

Apr 02, 2026

### Automatic, adaptive & matrix car lighting | The AA

There might be times when you need to take control, such as when driving through areas with inconsistent lighting or

May 04, 2026

### What Are Automatic High Beams and How Do They Work?

AHB systems automatically adjust your car's headlights between high and low beams based on the surrounding

Jul 18, 2026

### Car Headlight Wiring Diagram

The high beam relay powers the high beam lights, and the low beam relay powers the low beam lights. Both relays

Dec 26, 2025

### Lighting Control Module: Functions, Issues & Diagnosis

A lighting control module (LCM) is an electronic component that acts as the "brain" of a car's lighting system. It

Mar 13, 2026

The Importance of Headlight Control Module in Modern Vehicles

The headlight control module or headlight switch module is an essential electronic component that controls the operation of

May 03, 2026

Electronic control units in LED headlamps | HELLA

Structure and function of electronic control units in contemporary vehicles with LED headlamps: Design Audi A6 matrix LED

Jul 29, 2025

One or Both Headlights Not Working? Learn the Causes & Fixes (2026)

You may find questions like "Why is one of my low beam headlights out?" or "One headlight is out, but the high beams

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.greatpremiersolutions.co.za>

Email: [sales@greatpremiersolutions.co.za](mailto:sales@greatpremiersolutions.co.za)

Phone: +27 82 914 3675

Address: Unit 5, Silicon Heights, 22 Electron Avenue, Cape Town, 8001, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

