



S O L U T I O N S

---

## SEG Series



**PROFESSIONAL HEADLIGHT AIMING  
DEVICES FOR EVERY REQUIREMENT**

SEG Series

GUTMANN  
SOLUTIONS

Handling modern headlight systems is no problem for shops having the headlight aiming devices SEG IV and SEG V.

# LOOK AT ME.

**Headlights that are aimed precisely are essential for the safety of all participants in traffic. Unfortunately, the regular light check campaigns show that every third car on average has deficiencies in the headlight system. Some headlights are aimed too high other vehicles even have defect headlights which means a lot of work for shops to re-establish visibility and thus safety on the road. This fact provides moreover additional chances for increasing the turnover.**

With headlight aiming devices of the SEG Series Hella Gutmann Solutions provides powerful and professional aiming devices of the latest generation. Depending on the SEG equipment version, you can check and adjust also the latest headlight systems of various manufacturers. However, because of the different demands of shops we offer various equipment versions of the SEG devices. In this way we can provide the right device for any requirement. One thing, however, the devices have in common: They provide more safety on the road and ensure correct headlight adjustment, satisfied customers and increased turnover.



With devices of the SEG Series, shops are on the safe side because the devices already meet the whole range of legal requirements to a modern headlight aiming device.

# Law is afficed

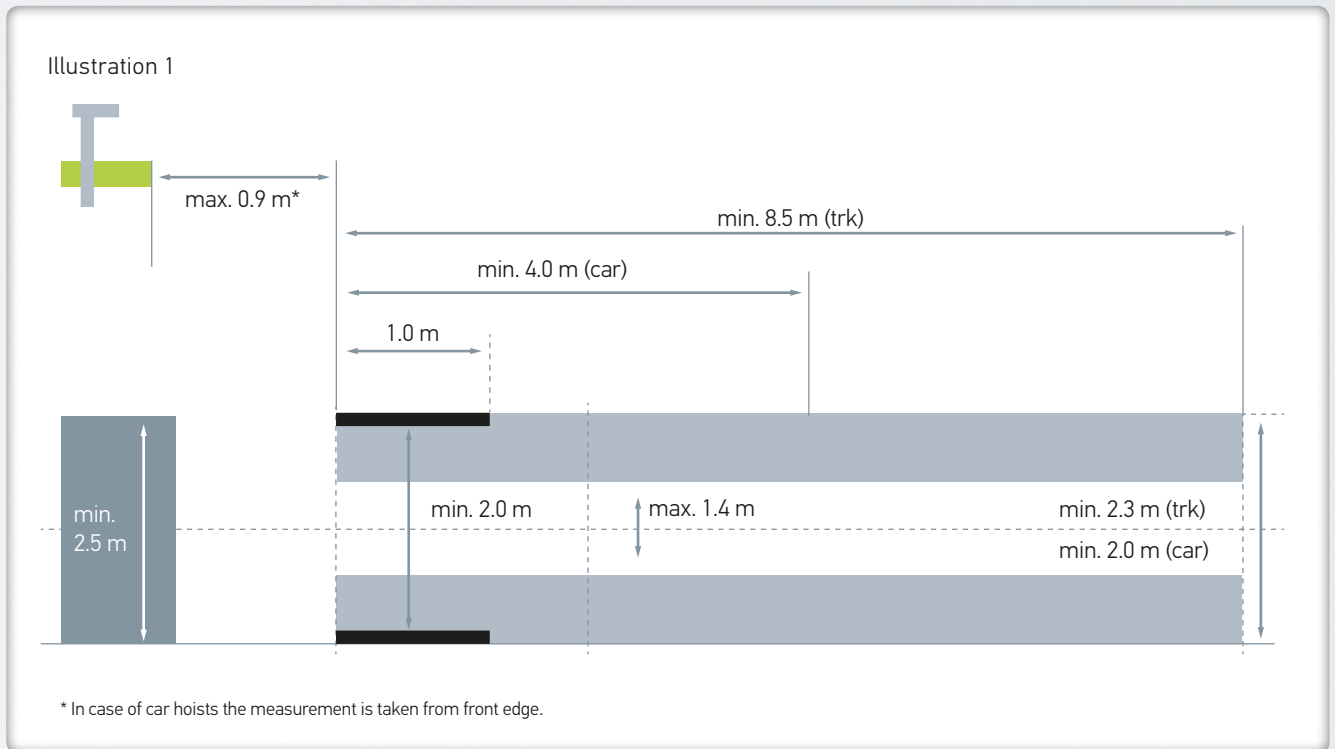
**In order to meet all the requirements for an exact and uniform adjustment of headlight systems, the headlight test guideline of the vehicle safety and emissions inspection has been adapted to the tougher requirements. The are the essential new features:**

- The new guideline\* will become valid from 1st January 2015 for all new testing systems
- There will be a transitional period of 24 months for existing testing systems
- All shops and testing institutions are concerned, which perform the vehicle safety and emissions inspection
- The headlight aiming device has a separate, extra area
- The dimensions, positions and characteristics must correspond to illustration 1
- Inclinations should not be more than 1.5 %
- The installation space must be marked correctly, clearly and free from wear
- Regarding the levelness of the installation space there are only minor tolerances permitted (illustration 2).
- This requirement can be disregarded, if the headlight aiming device is able to compensate some unevenness.
- Newly established systems have to be documented in a test report
- The systems will be checked every 2 years. The results from this have to be kept at least 5 years.

\* A detailed version of the guideline is in the Verkehrsblatt 05-2014.

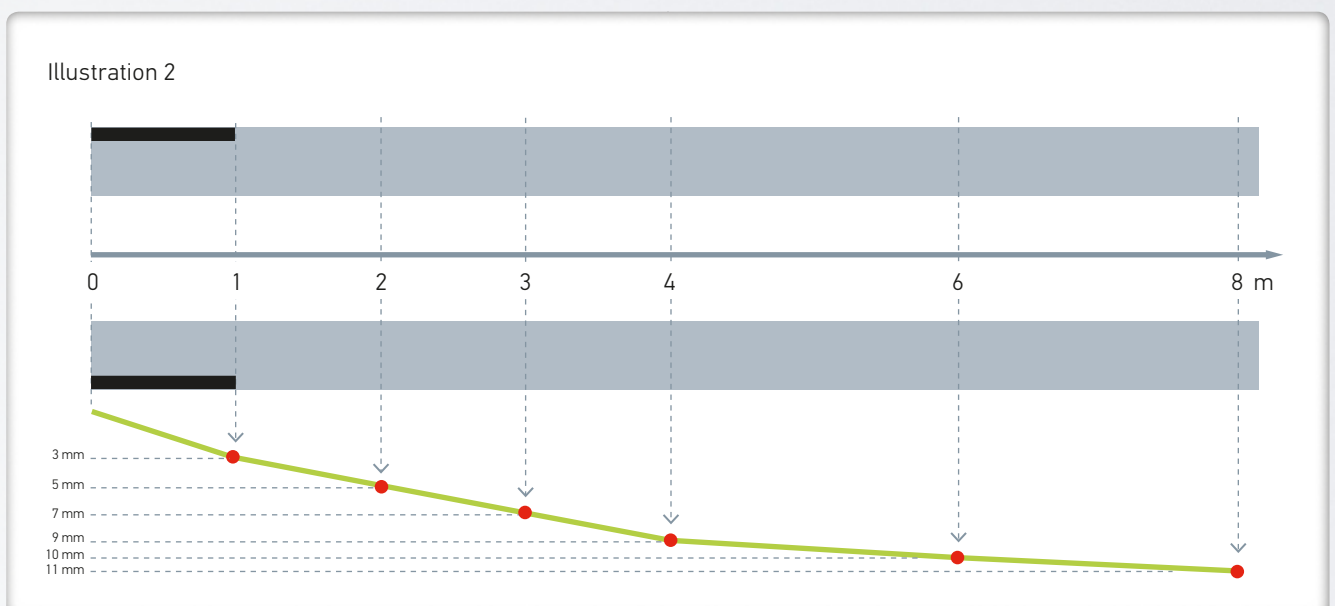
## System preconditions:

The headlight aiming device has a separate, extra area. The dimensions, positions and characteristics of these areas must correspond to the following illustration (illustration source: Verkehrsdatenblatt).



## Unevenness of vehicle floor space:

Regarding the levelness there are only minor tolerances permitted for the ground and or the tracks.



# SEG V – A real eye-catcher

## New adjustments with the SEG V

The device of the latest generation combines the comprehensive knowledge of experts in diagnostic work and light systems. All functions of the SEG V can be controlled quickly and intuitively thanks to the 8.4" touch screen display. The explicit vehicle identification is done through the "Car history". The CMOS camera catches the light distribution of the headlight and transmits it to the electronic system for evaluation. The light distribution is then depicted together with specific data on the screen in almost no time. It is also possible to enter vehicle-specific data prior to the measurement due to the software similar to the mega macs series. Quick tests without entering data are possible, too. After the measurement the recorded measurement data can be transmitted to peripheral devices through USB interface.

Especially in case of the fine tuning of modern assistant systems the work with the SEG V is facilitated significantly as the classic light/dark boundaries are not recognized. The corresponding headlight together with the correct aiming method is selected in no time thanks to the vehicle data stored in the SEG V.

He who does not want to make any compromises in the headlight aiming procedure, will decide to purchase an SEG V device of Hella Gutmann Solutions now.





The SEG V device includes vehicle-specific data and correct algorithms ex works, that are required by shops in order to quickly and reliably aim complex headlight systems.



The SEG V can be easily and intuitively operated with the 8.4" touch screen display with the clear menu structure.



On some vehicles the it is recommended to direct the device according to the vehicle's longitudinal axis. This kind of adjustment is no problem with the CSC Tool.

# SEG IV\* – Almost a legend

## A bright future with the SEG devices

Precision headlights require precise aiming devices. In order to meet this demand and the increasing needs of the shops for sturdy and practical technology Hella Gutmann Solutions provides exclusively headlight aiming devices, that fulfill our high expectations and that are perfectly matched to the tough business in shops.

## Prepared for all systems

The whole range of present headlight systems such as halogen headlights, xenon headlights, LED headlights and systems with high beam assist (vertical light/dark boundary) can be checked and adjusted precisely thanks to the new scaling on the test screen of the SEG IV.

## Suitable for all sizes

The solid column with a set range between 250 mm and 1,450 mm enables comfortable adjustments not only on motorcars and motorcycles, but also on vehicles whose headlights are installed at a height of 1.20 m such as on agricultural machines and municipal vehicles.

## Extremely precise

Today, more and more vehicles contain a high beam assist. This system has to be checked, adjusted or evaluated separately depending on the manufacturer. However, this is no problem with many of the SEG models thanks to the new test screen. The vertical scaling of the test screen is indicated in steps of  $0.2^\circ$  but allows a reading of the values in steps of  $0.1^\circ$ . Therefore, shops are e.g. able to evaluate the Matrix-beam LED lighting of the new Audi A8. The correction value read on the scale is then transmitted to the ECU through the diagnostic device. The SEG IV hence delivers the decisive success factor for a perfect adjustment result on headlights that can no longer be aimed manually.

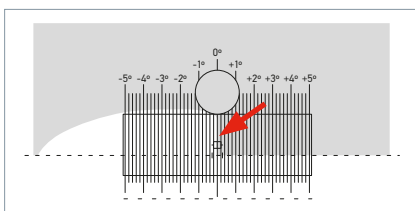
## Utmost compatibility

The test screen of the SEG IV and SEG V devices is suitable for all light distributions such as low beam, high beam and fog light as well as for the various high beam assist systems.

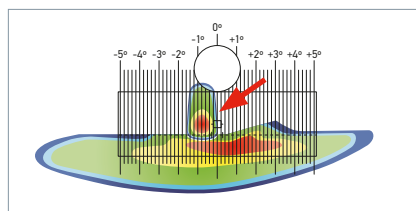




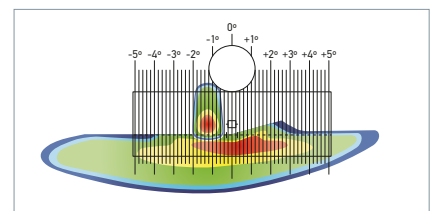
## Everything at a glance



**Example: VW Touareg with high beam assist**  
The light area represents the light distribution of the left headlight. The vertical light/dark boundary (red arrow) must be set to the zero line. The reversed position applies to the right headlight.



**Example: Audi A8 with Matrix-beam LED high beam assist**  
The vertical light/dark boundary can be read directly on the scale. The left illustration shows the correct position at the zero line. In case of a deviation from this position (right illustration), the correction value (distance to zero line) must be transmitted to the ECU through a diagnostic device (here: example of the left headlight).



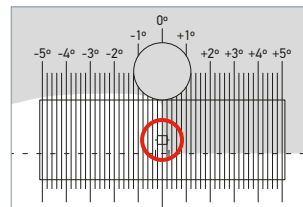
There have been included all the aspects in the development of the SEG IV series. It probably therefore is that essential for shops and contributes to additional turnover for shops dealing with professional light checks.



The wide-band visor with integrated reticule can be adapted to different heights thanks to horizontal adjustment.



The digital luxmeter is used to determine the glare value of the low beam and the illumination strength of the high beam quickly and easily.



The photo diode (red marking) is placed in the exact position where the light hits the test screen. This is ideal for precisely measured Lux value.



All headlight aiming devices are equipped with a high-quality Fresnel lens.



The exact tilt of the light/dark boundary can be adjusted by turning the set wheel.



With the help of the level bubble, the SEG IV can be directed exactly parallel to the floor.



A special clamping mechanism facilitates the adjust the correct height.

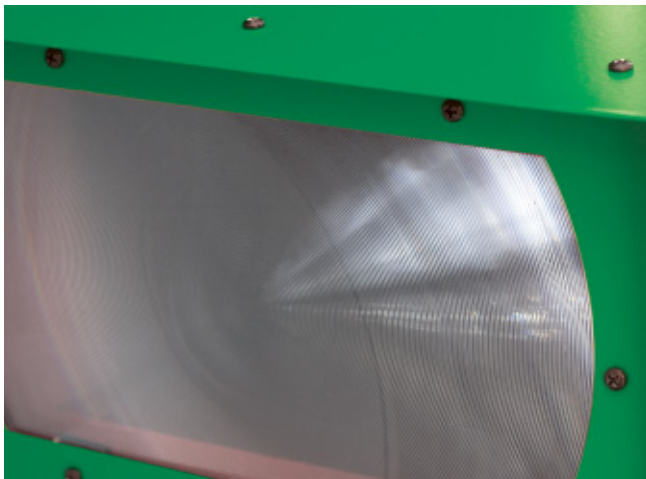


The integrated laser positioning aid can be used to direct the beamsetter box quickly and easily.

# SEG Economy – Large scope of performances already in the basic version

**Aiming headlights is not your main business but despite that you wish to get optimal quality with the essential scope of performances at a fair price. In this case the SEG Economy is the device of your choice.**

The sturdy headlight aiming device convinces through its easy manoeuvrability and its secure positioning. Thanks to its two fixed columns the beamsetter box can be easily adjusted in front of the vehicle. A wide-band visor serves for easier aiming towards the longitudinal axis. Glare values and minimum illumination strength can be easily and quickly determined with the digital luxmeter.



The basis version SEG Economy already includes a high-quality and durable Fresnel lens. This is good due to its light weight and even better due to its constructional dimensions and perfect for exact adjustment results.





SEG V



SEG IV-DLLX



SEG IV-DL



SEG Economy

## Overview

	SEG V	SEG IV-DLLX	SEG IV-DL	SEG Economy
Digital luxometer	+	+	+	+
Wide-band visor	+*	+*	+	+
Deflecting mirror		+	+	
Fresnel lens	+	+	+	+
Laser positioning aid		+	+	
Level gauge/eccentric axis for tilt adjustment	+	+		
Drehbare Säule zur directing the beamsetter box	+	+	+	
Suitable for rails	+	+	+	
8.4" touch screen display	+			
Vehicle identification with the Car history	+			
USB interface	+			
WLAN preparation	+			
Can be updated	+			
CSC Tool compatible	+	+		
Polymer concrete base with	+	+	+	
rollers with manufacturer aiming device	+	+	+	+
Item number	<b>8PA 007 732-401</b>	<b>8PA 007 732-311</b>	<b>8PA 007 732-301</b>	<b>8PA 006 796-071</b>

\* Laser visor.

Do you wish to get more information about the professional aiming devices of the SEG Series?  
Please do not hesitate to contact your Hella Gutmann sales partner.

**HELLA GUTMANN SOLUTIONS A/S**

Lundborgvej 10

DK-8800 Viborg

Tlf.: + 45 86 60 28 88

[www.hella-gutmann.com](http://www.hella-gutmann.com)

E-mail: [diagnose@hella-gutmann.dk](mailto:diagnose@hella-gutmann.dk)