

Description

To meet the legal requirements regarding light distribution and intensity, the installed headlights have to be checked and adjusted.

This production process can be done in shortest time and with highest precision by using our headlight aiming systems; if required also in combination with other adjustment processes (driver assistance systems, wheel alignment).



Benefits for our customers

- All hardware and software components customized from one supplier.
- Suitable for all headlight systems, regardless of the used light source.
- Evaluation of all geometrical and photometric characteristics.
- Can be combined with other adjustment processes (driver assistance systems, wheel alignment).

Technical Data

| | Features, functions etc. |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Centering | Via pneumatic roll pusher |
| Light sources | Halogen, Xenon, LED, Laser, ... |
| Headlight types | Low beam, high beam, fog light, matrix beam, laser stimulated high beam, DRL (daytime running light), PL (position light), turn indicator, wiping turn indicator, infrared high beam (combined with any onboard NightVision system) |
| Geometrical adjustments Photometric checks | Kink point position, hotspot position low beam and high beam, sharpness and inclination of the cut-off line, intensity and intensity gradients, global and local minima and maxima |
| Component checks | Check of correct headlamp type (RHD/LHD/SAE/...), turn indicator functionality (conventional, wiping), color measurement (color coordinates, color temperature), detection of missing LEDs |
| Electrical checks | Power consumption of light sources |
| Mechanical checks | Gear check of the adjustment screws, check of placement motors for cornering light and levelling control |
| Communication | With headlight: CAN Bus/LIN Bus With rig: PLC, digital I/O Profibus, ProfiNet |
| Connection to higher-level systems | e. g. via ASAM, SIEMENS ECOS, DSA, Cirrus, CASCADE, NAFS |

Components



Light Collecting Box: As the central component, the Light Collecting Box projects the light image of the headlight on a suitable projection surface using a Fresnel lens. This allows the analysis with the built-in camera(s) and the in-house developed measurement and process software.



Positioning system: Ensures a reproducible, precise positioning of the Light Collecting Box in the correct measurement position in front of the headlight. For different vehicle and headlight types, the individual positions can be saved in a database. Positioning systems are available in various designs (portal and floor systems, motorized or operated manually).



Centralizer: The centralizer is used to level and align the vehicle along the axis of symmetry. This defined and reproducible position of the vehicle is required for the correct measurement and adjustment of the headlights.



Software: Our image processing software developed with long-term experience precisely analyses the light image captured in the Light Collecting Box. Individual parameters, process and adjustment algorithms can be saved in a database for each headlight and vehicle type.



Adjustment tool: The lightweight and resilient VisiCon hand adjustment tools guarantee shortest adjustment times and are controlled by our software. The worker only needs to apply and enable the adjustment tool. Adjustment to the target value is automatic.