Beissbarth MLD 815 –
Digital headlight measurement and adjustment

- TÜV-certified (prototype technical release)
- Cross and alignment laser
- CMOS camera for real-time image processing
- Integrated printer
• TÜV-certified (prototype technical release*)
• Cross and alignment laser for precise positioning
• For all light sources and glare-free high-beam systems (DLA**, Matrix)
• CMOS camera for real-time image processing
• Integrated printer
• Test results in real time
• Comparison between measured and limit values and unambiguous red/green evaluation
• Precise definition of the cut-off line without disrupting blue fringe

* TÜV certificate in line with StVZO § 50:
MLD 815 is TÜV-certified by prototype technical-release examination in accordance with the directives for testing headlight adjustment/test equipment (German Road Traffic Type-Approval Law StVZO §50 paragraph 5).
** Dynamic Light Assist
intelligent, fast and precise

- Digital LCD colour display (5.7") with 262,000 colours
- Touch-screen function (operation with gloves is possible)
- Intuitive and simple user guidance
- Visual and acoustic signals support the measurement procedure
- Menu featuring 7 languages
- Operating panel can be rotated by 180° for different areas of application (e.g. for general inspections or for the adjustment at the workshop)
- Independent operation thanks to battery

- All types of light sources (xenon, bi-xenon, LED, bi-LED, halogen)
- Glare-free high beam (with MLD 815 Matrix/DLA, order number 1 692 104 329)
- All types of vehicles (passenger cars, trucks, motorcycles)
- All types of headlights (main headlights, fog lamps, auxiliary lamps)
- Measuring height (optical center): 24 – 145 cm
- Measured values: Horizontal and vertical deviation (pitch angle), intensity, roll angle, yaw angle
- Digital precision: +/-1 cm on a 10-meter measuring distance

Images displayed in real time

COMS camera with high resolution and frame rate

Integrated printer

Operating panel can be rotated by 180° (operation with gloves is possible)
Laser precision for accurate measurement

Top precision thanks to laser technology

- The alignment laser on the upper part of the MLD 815 column helps aligning the light box with the vehicle
- The cross laser eases alignment with the headlight particularly in case of LED and xenon lighting systems
- High-quality optics with large, scratch-proof glass lens (Ø 230 mm)
Leveling at the test area in accordance with the current directive

German Road Traffic Type-Approval Law
StVZO § 29 general-inspection headlight-test directive
- MLD 815 alignment (leveling) on the test area complies with the latest requirements placed on test areas in workshops.
- Two-dimensional level for the horizontal leveling of the light box
- Levelable 3-wheel trolley
- Levelable rail system (3m) for above and in-ground installation as optional accessory
The height-measurement sensor automatically measures the installation height of the headlight (240 to 1450 mm) and shows the measured height on the display.

State-of-the-art design for precise working

- Lightweight design thanks to the finite element method (FEM)
- Super-simple height adjustment due to maintenance-free counterweight system with quadruple-mounted rollers
- Easy guiding thanks to handles on the column (upper handle) and at the light box (lower handle)
- Column can be turned 30° on the low-friction bush bearing
- Protected against dust and splash water
- Top mechanical stability for reliable transverse movement
- Height-measurement sensor (optional)

(240 – 1450 mm)
Test results via Bluetooth® with quick and neatly arranged results on the PC

Optional: visualization on the workshop computer
- Data transfer to PC via Bluetooth®
- User interface eases intuitive operation
- Database function
- Printing and archiving
- Adjustment of the colour scheme by the user: light/dark depending on the lighting conditions
Reliable checking and adjustment of permanent high beams

**Adjustment of headlights with glare-free high beam (e.g. Dynamic Light Assist DLA and Matrix Beam)**
Currently, the version MLD 815 Matrix/DLA (order number 1 692 104 329) assists the operator at both of the common procedures:
- Mechanical adjustment of the vertical cut-off line (e.g. DLA)
- Position of the vertical cut-off line read out by means of the MLD 815 software – with an accuracy level based on angular minutes (e.g. Matrix Beam)

**Communication with the vehicle:**
- Vehicle preparation and activation of the basic setting via OBD
- Triggering individual test images (see illustration above) using an application for ECU diagnoses
- Information on the position of the cut-off line is sent back to the vehicle via application for ECU diagnoses (in case of Matrix Beam)
Adjustment of a headlight with Matrix LED technology (test image via ECU diagnosis right on the vehicle)

Accurate display on the MLD 815 screen
Leveled test bay LTB 100

LTB 100: Safe base for accurate measurements

Workshop floors often feature a significant slope and unevenness. The LTB 100 levelable test bay meets all requirements the German general-inspection headlight-testing directive on rider 4, § 29 StVZO places on the test bay.

LTB 100 complies with the well-defined tolerances and dimensions given by the new headlight test directive:

- The areas must not exceed the maximum allowed inclination of 1.5 % and must be aligned.
- The headlight-tester set-up area must not exceed the max. unevenness of ± 1 mm on a 1-meter distance.
- The allowed unevenness of the tracks depends on the length of the test bay.

Test equipment in accordance with § 29 StVZO – German general-inspection headlight-testing directive

Installation as test lane or drive-through solution (optional)

LTB 100: Patented design for the 0 to 40 mm height adjustment for axle loads of up to 2.5 t
**LTB 100 at a glance:**

- Suitable for subsequent installation onto the workshop floor (min. installation height: 54 mm)
- Suitable for installation onto workshop pits (in combination with the optional pit drive-in protection)
- Extendable for drive-through solution (optional)
- Compensation and fine adjustment by means of 4 wheel set-up elements (4-meter version)
- Maximum allowed axle load: 2.5 t
- Test-system length above ground: 4 269 mm (4 m version incl. drive-on ramps)
- Adjustable height compensation: 0 to 40 mm
- Modular construction (4 m, optionally extendable to 6 m)

**Scope of delivery**

<table>
<thead>
<tr>
<th>Product</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTB 100 (4 m)*</td>
<td>1 692 100 030</td>
</tr>
<tr>
<td>Extension 2 m</td>
<td>1 692 100 031</td>
</tr>
</tbody>
</table>

**Special accessories**

- Set of drive-on ramps: 1 692 100 032
- Pit drive-in protection (4 m): 1 692 100 033
- Pit drive-in protection extension (2 m): 1 692 100 037

**Service/assembly accessories**

- Service kit (assembly pattern; supporting pliers)*: 1 692 100 034

* Screw anchors for the assembly are not included.
** Accessories can be reused for additional LTB units.

**General prerequisites concerning the properties of the foundation and the ground:**

Max. difference in height on 4 m/6 m: 0–40 mm

The ground must comply with Eurocode 2, DIN EN 1992

- Concrete quality: at least C20/25
- Please note the manufacturer specifications
## Technical data MLD 815

<table>
<thead>
<tr>
<th>Light intensity</th>
<th>Candela</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illumination</td>
<td>0 - 150 000 Lux/1 m</td>
</tr>
<tr>
<td></td>
<td>0 - 240 Lux/25 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Orientation (in %, cm, °)</th>
<th>0% - 10% (0 - 1 000 mm)</th>
<th>0% - 10% (0 - 1 000 mm)</th>
<th>0% - 6% (0 - 600 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low beam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High beam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top and bottom, right and left</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measuring height (optical centre above ground level)</th>
<th>240 - 1 450 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD colour screen</td>
<td>5.7”, 262 000 colours</td>
</tr>
<tr>
<td>CMOS camera</td>
<td>640 x 480 VGA, Frame rate: 60 fps</td>
</tr>
<tr>
<td>Laser class</td>
<td>3R</td>
</tr>
<tr>
<td>Plug voltage (input voltage of the battery charger)</td>
<td>100 - 240 V / 50 - 60 Hz</td>
</tr>
<tr>
<td>Supply voltage (integrated battery)</td>
<td>12 V</td>
</tr>
<tr>
<td>Operating temperature (°C)</td>
<td>+ 5 bis + 45 °C</td>
</tr>
<tr>
<td>Weight</td>
<td>35 kg</td>
</tr>
<tr>
<td>Size of the device (W x D x H)</td>
<td>660 x 695 x 1 780 mm</td>
</tr>
</tbody>
</table>

### Order numbers

- MLD 815 Standard (with printer) 1 692 104 323
- MLD 815 DLA/Matrix (with printer) 1 692 104 329

### Optional accessories

- Software upgrade for glare-free high-beam systems (for MLD 815 Standard) 1 692 105 115
- Rail (3 m) 1 692 105 080
- Rail extension (1.5 m) 1 692 105 112
- Height-measurement sensor 1 692 105 066
- PC-Software with Bluetooth®-Kit 1 692 105 145
- Cover 1 692 105 079

Subject to technical modification and changes to scope of delivery. Pictures may sometimes show special accessories or similar versions. Please contact your Beissbarth dealer for a binding up-to-date quotation.

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