MLT 3000 2.0

Headlight Tester

Original Operating Instructions

BA381001-en

BA381001-en
2025-11-17

© MAHA SE & Co. KG

The reproduction, distribution and utilisation of this document as well as the communication of its contents to others without explicit authorisation is prohibited. Offenders will be held liable for the payment of damages. All rights reserved in the event of the grant of a patent, utility model or design.
The contents have been checked with great care; however, errors cannot be fully excluded. Illustrations are examples and may differ from the original product. Subject to technical change without notice.

Manufacturer

MAHA SE & Co. KG
Hoyen 20 | 87490 Haldenwang | Germany

☎ +49 8374 585-0
✉ maha@maha.de
🌐 www.maha.de

Service

MAHA SERVICE CENTER
Maybachstraße 8 | 87437 Kempten | Germany

☎ +49 8374 585-100
✉ service@maha.de
🌐 www.mahaservicecenter.de

Dear Customer,

MAHA is one of the world's leading manufacturers of testing and lifting technology and places particular emphasis on quality and performance. The company's concept includes the development, manufacture and sale of products for use in automotive workshops, by vehicle manufacturers and testing organisations.

MAHA's claim is to also be a leader in the areas of reliability, safety and sustainability – this can be seen in many details that have been developed with these aspects in mind.

We are convinced that you will be more than satisfied with the quality and performance of our products for many years. With the purchase of our products you will also receive professional assistance in case of need for service and repair.

Please remember to keep these operating instructions in a safe place. Accurately following their contents will significantly extend the life of your product and also increase its resale value. If you sell your product, please also pass on the operating instructions.

MAHA is constantly working on the further development of all products and therefore reserves the right to make changes, e.g. in shape and appearance, without prior notice.

Extensive accessories, useful assembly material and auxiliary materials are available for our products. For further information, please ask your dealer or your MAHA contact person at any time.

Thank you for choosing a MAHA product!

Contents

1 General Safety Instructions 5
1.1 Introduction 5
1.2 Symbols and Signal Words 5
1.2.1 Personal Injury 5
1.2.2 Property Damage 5
1.3 Requirements on Operating and Service Personnel 6
1.4 Intended Use 6
2 Description 6
2.1 General Information 6
2.2 Requirements for the Place of Installation 6
2.3 Technical Data 7
2.4 Overall View with Components 8
2.5 Electronic Levelling 9
2.5.1 Compensation Coordinate Axes 9
2.5.2 Angle Symbols 10
2.6 Definition of Technical Terms 10
2.6.1 Pitch Angle 10
2.6.2 Low Beam 11
2.6.3 High Beam 11
2.6.4 SI Units of Brightness 12
3 Transport and Storage 12
3.1 Safety Instructions 12
4 Operation 13
4.1 Safety Instructions 13
4.2 Switching On / Off 13
4.3 Aligning the Headlight Tester 14
4.4 Selection Buttons: Icon Description 15
4.4.1 Main Menu 15
4.4.2 Manufacturer-Specific Headlight Settings (OEM) 16
4.5 Performing a Headlight Test 16
4.5.1 Measuring Menu: Zoom Function 17
4.5.2 Measuring Menu: Manual Inflection Point Function 18
4.5.3 Quick Mode 18
4.5.4 Saving the Measurement Values to PDF 19
4.5.5 LED Adjustment Aid (Option) 20
4.6 User Menu 20
4.6.1 User Settings 21
4.6.2 User Variables 23
4.6.3 PC Connection via Bluetooth 24
4.6.4 Software Update 25
4.6.5 Checking the Battery Status 27
4.6.6 Setting Date and Time 27
4.6.7 Reading the AD Converter Values 27
4.6.8 Selecting a Language 27

4.7 EUROSYSTEM Settings 28
4.8 Service Menu 30
4.8.1 Country-Specific Defaults 30
5 Energy Management and Troubleshooting 31
5.1 Charging the Battery 31
5.2 Battery Status 32
5.2.1 Battery Life 32
5.2.2 Display of Charge Level 32
5.2.3 Energy Saving Function 32
5.2.4 Protection against Deep Discharge 32
5.2.5 Protection against Mechanical Damage 32
5.3 Data Recording for Error Analysis 33
5.4 Troubleshooting 33
6 Maintenance 34
6.1 Safety Instructions 34
6.2 Spare Parts 34
7 Disposal 34
7.1 Disposal of Batteries 34
8 Declaration of Conformity 34

1 General Safety Instructions

1.1 Introduction

Thoroughly read this manual before operating the equipment and comply with the instructions. Always display the manual in a conspicuous location.

Personal injury and property damage incurred due to non-compliance with these safety instructions are not covered by the product liability regulations.

1.2 Symbols and Signal Words

1.2.1 Personal Injury

DANGER

indicates an immediate hazard which, if not avoided, will result in death or severe personal injury.

WARNING

indicates a potential hazard which, if not avoided, could result in death or severe personal injury.

CAUTION

indicates a potential hazard which, if not avoided, could result in moderate or minor personal injury.

1.2.2 Property Damage

NOTICE

indicates a potentially harmful situation which, if not avoided, could result in damage to the equipment or surrounding objects.

1.3 Requirements on Operating and Service Personnel

All persons employed in the operation, maintenance, installation, removal and disposal of the device must

- be at least 18 years old,
- be mentally and physically suited for these activities,
- be demonstrably trained and instructed in writing,
- have read and understood the operating instructions, especially the instructions what to do in the event of defects or malfunctions,
- be on record as having been instructed in safety guidelines,
- have practical experience in working with vehicle lifts and the hazards inherent in such equipment.

1.4 Intended Use

This device only serves to check and adjust the alignment of vehicle headlights.

This device cannot be modified without the express, written consent of the manufacturer. Any infringement renders the conformity declaration invalid.

2 Description

2.1 General Information

The MLT 3000 2.0 digital headlight tester is used to quickly and objectively check and adjust vehicle headlights. It takes into account all statutory limits and any OEM specifications.

Unevenness in the installation area of the device is compensated for by an electronic level equaliser. The 7-inch touchscreen ensures intuitive menu navigation and clear display of the measured values.

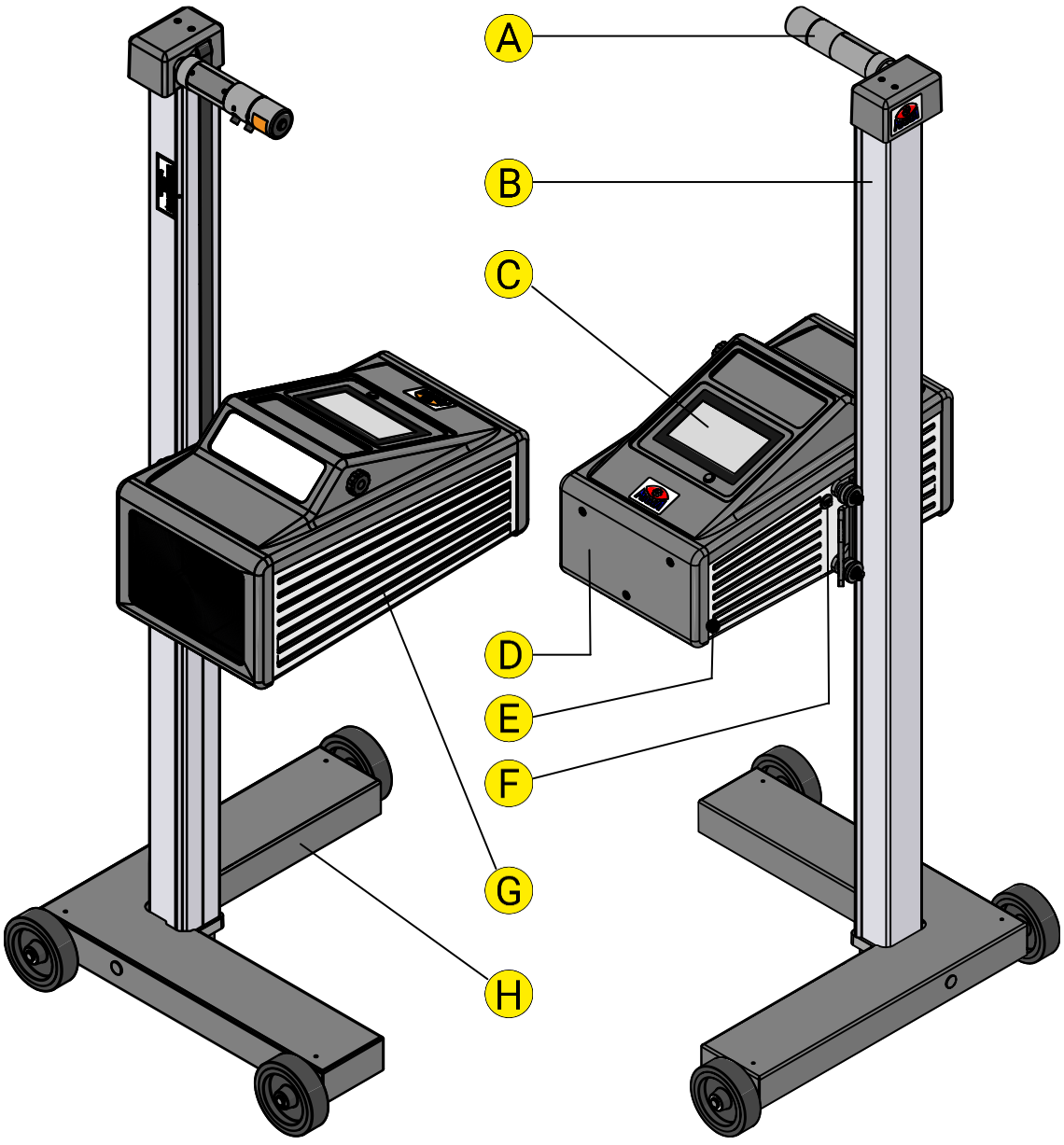
2.2 Requirements for the Place of Installation

Please observe your national directives and specifications.

2.3 Technical Data

Measuring range	above hotspot	0…800 mm / 10 m (0…8 %)
	above pitch angle	0…300 mm / 10 m (0…3 %)
	below	0…700 mm / 10 m (0…7 %)
	left	0…1000 mm / 10 m (0…10 %)
	right	0…1000 mm / 10 m (0…10 %)
Light intensity		0…125 000 cd
Illuminance		0…200 lx
Measuring distance		100…500 mm
Adjustment path of lens centre above floor		220…1500 mm
Deviation of intensity		±5 %
Deviation from one axle		±5‘
Compensation of floor unevenness		±3 %
Temperature		+5…+40 °C
Relative humidity		20…80 %
Supply voltage		100…240 V AC, 50/60 Hz
Charging voltage / Battery voltage		12 V DC / 7.2 V DC
Dimensions (W x H x D)		655 x 1770 x 720 mm
Net weight / Shipping weight		54 kg / 69 kg
Type approval number		TPN 2023-02-2206578

2.4 Overall View with Components



A Laser alignment unit

B Column

C Display

D Battery compartment

E Charging socket

F USB port

G Casing, with push handle

H Chassis

2.5 Electronic Levelling

This headlight tester comes standard with an electronic position sensor which determines the inclination angle of the device. The software compensates possible deviations in the X- and Z-axes while calculating the position of the headlights.

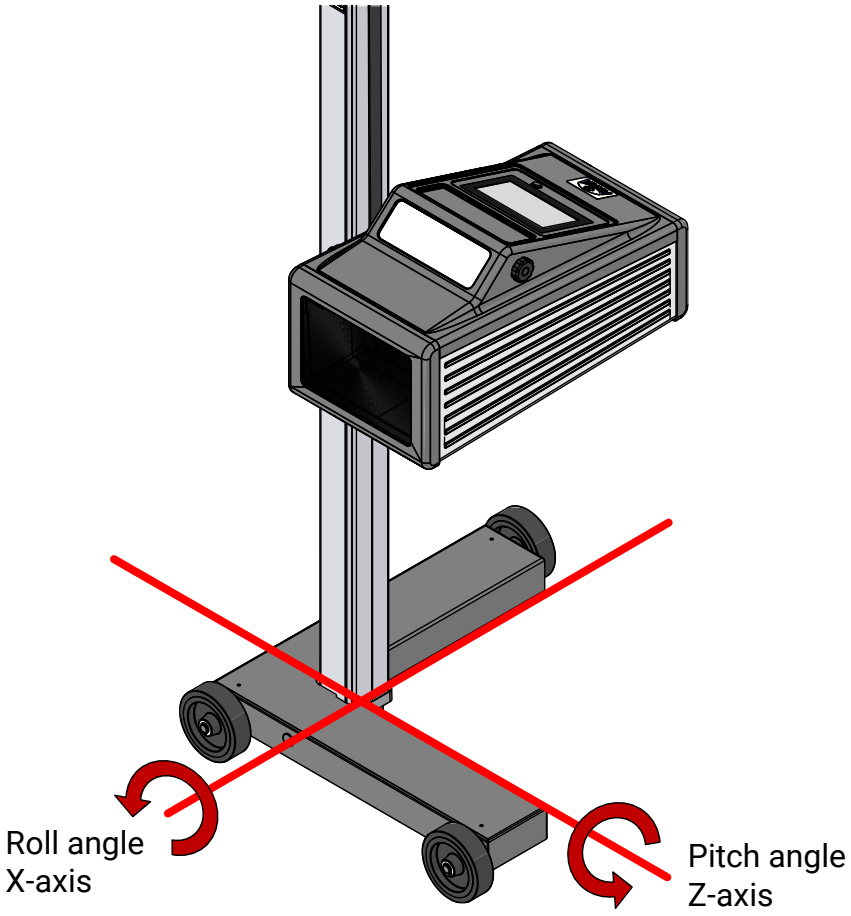
The headlight tester may be set up on uneven surfaces even if the ground unevenness is outside the permissible tolerances, provided that the maximum unevenness does not exceed the headlight tester's self-levelling capacity of 3%.

After enabling the respective function, the compensation values can be checked using a dot or cross hair laser. See section "Operation > Settings > Calibrating the Camera according to Directive".

NOTICE

This function must be enabled exclusively by authorised service technicians and is applicable for the respective test surface only.

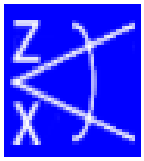
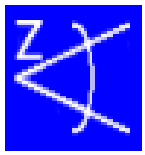
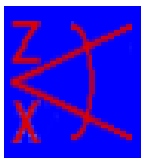
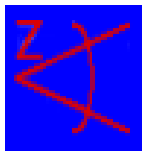
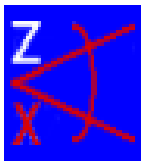
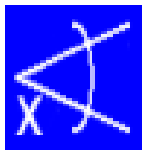
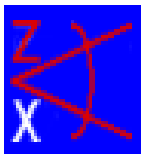
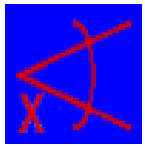
2.5.1 Compensation Coordinate Axes



2.5.2 Angle Symbols

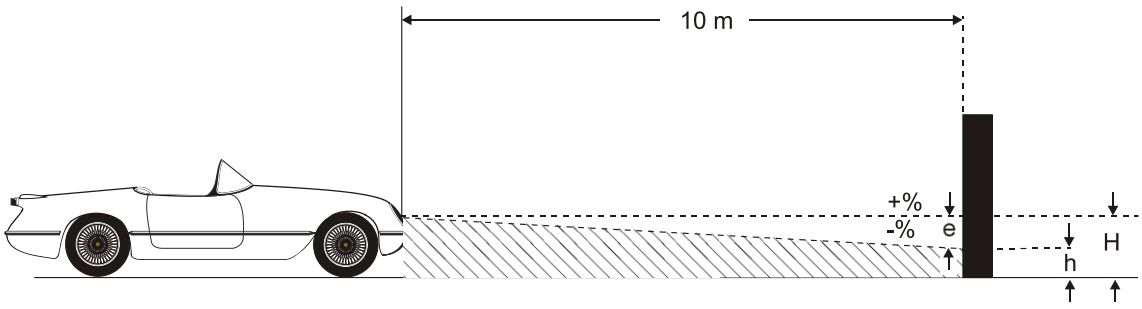
Once the adjustment of the inclination sensor has been completed, an angle symbol appears in the info bar to indicate the adjusted/active inclination axes.

Overview of symbols:

	Both axes adjusted/active, headlight tester ready for operation	Z-axis active, headlight tester ready for operation	
	Both axes active, inclination of Z- and X-axis too large, no measurement possible	Z-axis active, inclination too large, no measurement possible	
	Both axes active, inclination of X-axis too large, no measurement possible	X-axis active, headlight tester ready for operation	
	Both axes active, inclination of Z-axis too large, no measurement possible	X-axis active, inclination too large, no measurement possible	

2.6 Definition of Technical Terms

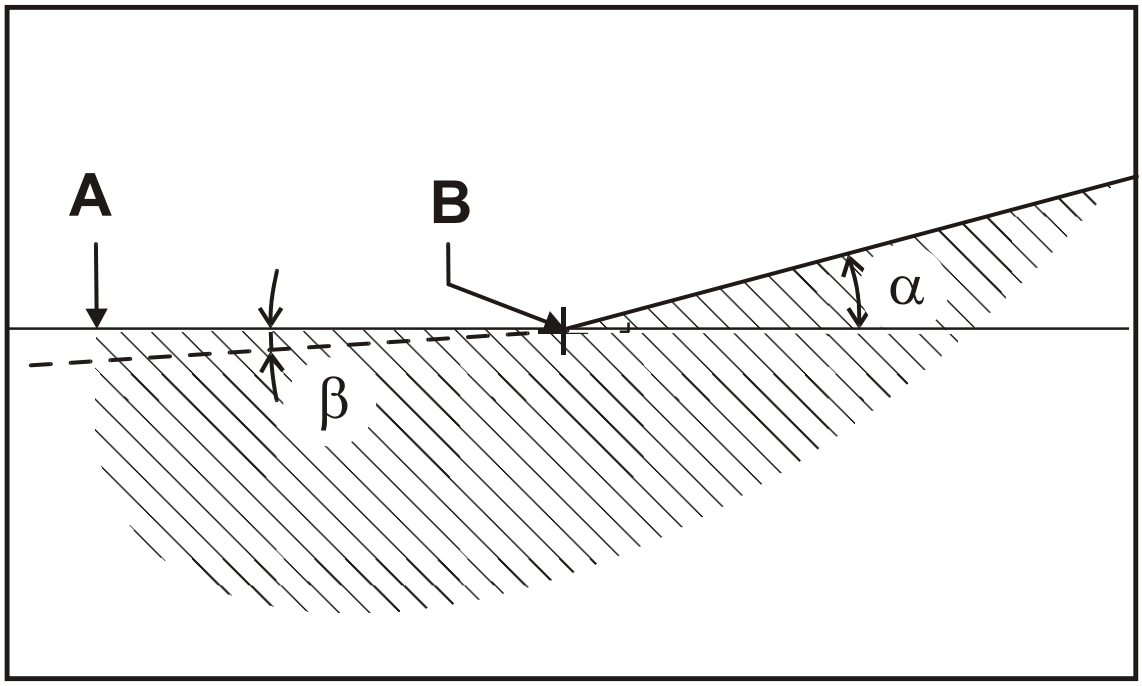
2.6.1 Pitch Angle



The inclination of the light-dark limit against the test surface is expressed as a percentage, using 10 m as a reference parameter:

$$\frac{H[cm]-h[cm]}{1000\ cm} \times 100\%$$

2.6.2 Low Beam



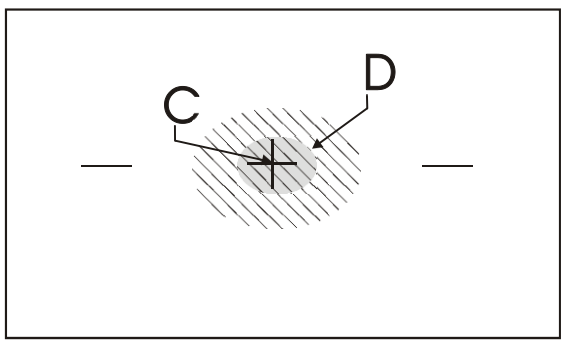
A **Light-dark limit**
Boundary of light distribution between ‘top dark’ and ‘bottom light’ for low-beam lights.

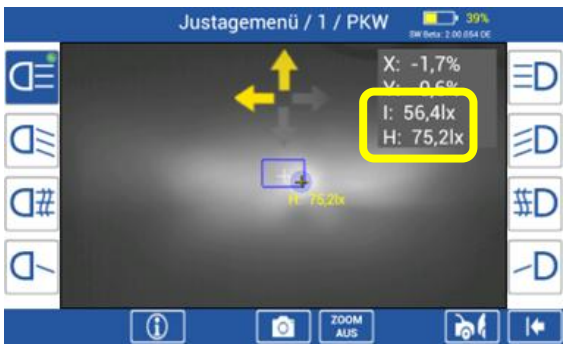
B **Inflection point**
Inflection point of light-dark limit for asymmetric low-beam lights. The deviation of the inflection point is expressed in percentage.

α **Yaw angle**
Angle between the section of the light-dark limit rising at the right of the inflection point and the horizontal for asymmetric low-beam light.

β **Roll angle**
Angle between the left section of the light-dark limit and the horizontal, usually 0°.

2.6.3 High Beam





C **Central mark**
From the central mark, the deviation of the hot spot in X and Y directions is

specified in percentage or optionally in angular minutes.
'I' indicates the illuminance in Lux or optionally the light intensity in Candela in the area of the central mark.

D Hot spot
Centre of light beam for high-beam. The deviation of the hot spot from the central mark is expressed in percentage.
'H' indicates the illuminance in Lux or optionally the light intensity in Candela in the area of the hot spot.

2.6.4 SI Units of Brightness

Light intensity I in Candela

The candela [cd] is the SI unit of light intensity. It describes the luminous flux emitted by the entire light source in a specific direction.

Illuminance E in Lux

The lux [lx] is the SI unit of illuminance. It defines the illumination produced by a luminous flux of 1 lumen when it is distributed evenly over an area of 1 m^2.

3 Transport and Storage

3.1 Safety Instructions

NOTICE

Check package to ensure it is complete, in accordance with the order confirmation. Report any transport damage to the carrier immediately.

During loading, unloading and transport always use suitable lifting equipment, material handling equipment (e.g. cranes, forklifts, etc.) and the right load handling attachments and slings. Always ensure that the parts to be transported are suspended or loaded properly so that they cannot fall, taking into account size, weight and the centre of gravity.

Store the packages in a covered area, protected from direct sunlight, at a low humidity and with temperatures between 0...+40 °C (32…104 °F). Do not stack packages.

When unpacking, take care to avoid any possibility of injury or damage. Keep at a safe distance when opening the package strapping, do not allow any parts to fall out.

4 Operation

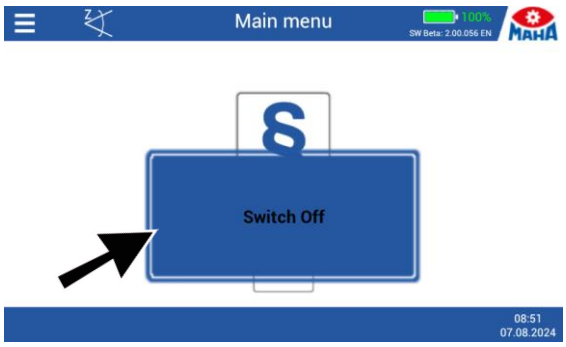
4.1 Safety Instructions

NOTICE

- The device may only be operated within its performance limits.
- All parts of the electrical system must be protected against damp and humidity.
- Never expose the lens to direct sunlight. The bundling of light may cause fire damage inside the casing.

4.2 Switching On / Off

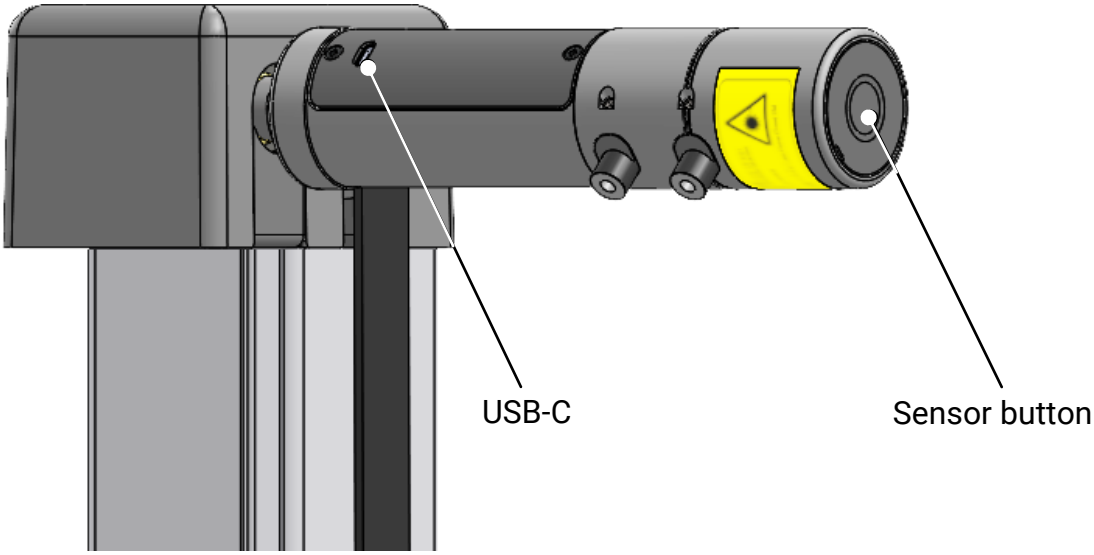
The headlight tester is operated via buttons on the capacitive touchscreen. The ON/OFF button is on the right-hand side underneath the touchscreen.



After pressing the button, confirm ‘Switch off’ on the touchscreen.

INFO
The headlight tester cannot be switched off while being charged via power supply unit.

4.3 Aligning the Headlight Tester



CAUTION

Never look into the laser beam (laser class 2M). Comply with work safety and accident prevention directives (H&SW regulations) in respect of laser radiation.

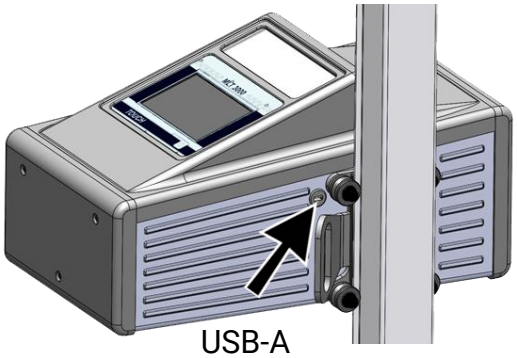
1 When using guide rails, position the headlight tester centrally in front of the vehicle. Without guide rails, the tester must be adjusted in front of each headlight. Please observe your national directives and specifications.

2 To align the headlight tester to the vehicle, switch on the laser in the alignment unit. To do this, tap the sensor button on the front of the alignment unit with your finger. The laser is activated for approx. 22 seconds and then switches off again automatically.

3 Swivel the laser line to the front of the vehicle. Align the laser line with two symmetrical reference points on the vehicle by rotating the headlight tester casing.
A mirror unit is optionally available. In this case, align the headlight tester so that the line lies on two symmetrical reference points on the vehicle.

INFO

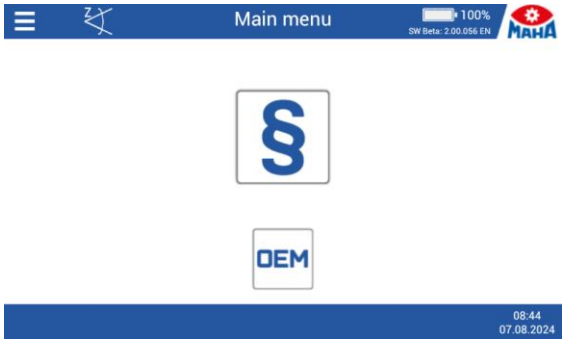
- Tapping the sensor button when the laser is activated resets the timer.
- One battery charge is sufficient for approx. 4500 activations.
- The alignment unit is powered by a built-in 3.7 V Li-ion battery. The battery can be charged by connecting the USB-C charging socket in the cover of the alignment unit to the USB-A socket on the tester housing.



- Alternatively, charging can be carried out via an external USB power supply unit (not included).
- A complete charging process takes approx. 5 hours and is completed automatically.
- The laser can also be used during the charging process.

4.4 Selection Buttons: Icon Description

4.4.1 Main Menu

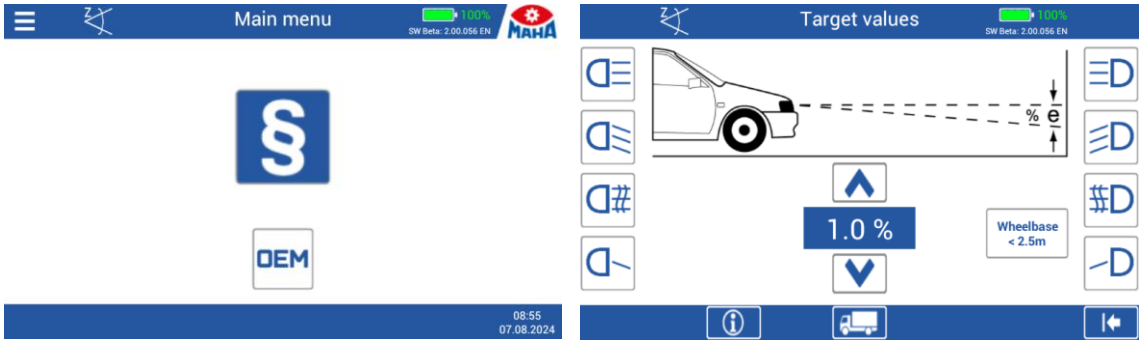


Tap the MAHA logo to open the service menu.

User settings

Headlight test according to § 29 StVZO (Germany)

Original Equipment Manufacturer / Manufacturer-specific test instructions



High-beam

Low-beam

Foglight

Daytime running light

1.0 %

Pitch angle adjustment

Info button – Button labels shown instead of icons

Low-beam

Selection between Car/Truck vehicle classes

Arrow-back button to browse back through screens one by one

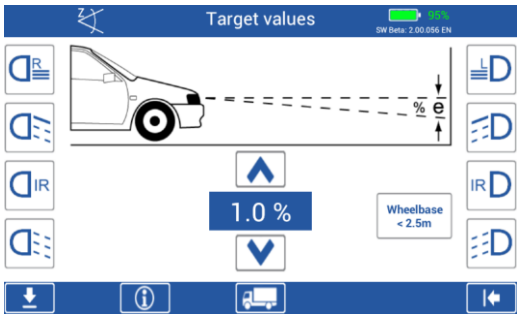
Wheelbase < 2.5m

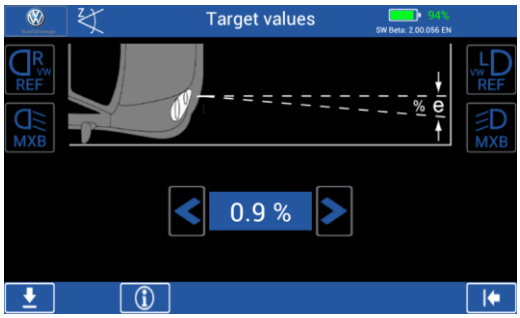
Vehicles smaller than 2.5 m wheelbase (other limit values)

Green dot = Headlight tested, OK
Red dot = Headlight tested, not OK
Grey dot = Headlight without evaluation

4.4.2 Manufacturer-Specific Headlight Settings (OEM)

ALL Button ALL makes several measurement levels available.



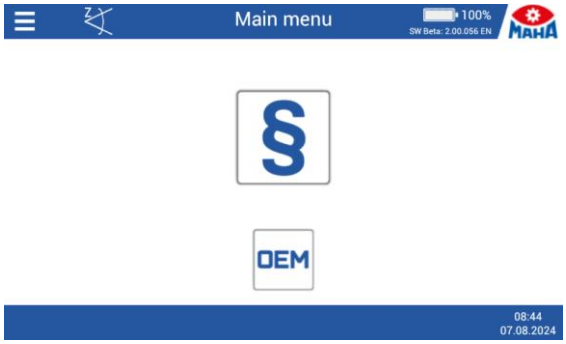


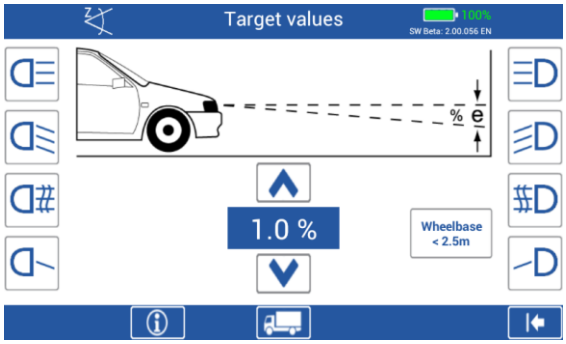
Use the Down button to navigate through the measurement levels.

INFO
OEM section! Carry out the test according to manufacturer's instructions.

4.5 Performing a Headlight Test

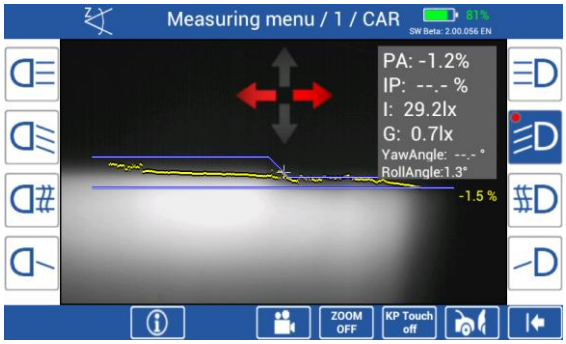
Main menu > Paragraph icon > Target values

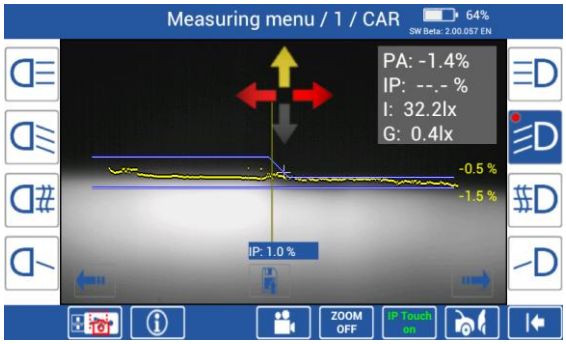


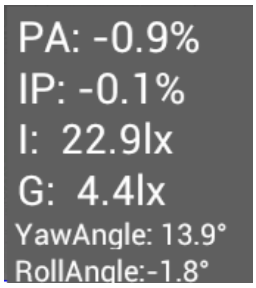


To start the measurement, press the desired light button.

Adjusting direction:
Green tick = Everything OK
Yellow arrow = Minor deviation within tolerance range
Red arrow = Outside tolerance







PA = Pitch angle
IP = Inflection point
I = Intensity in lux
G = Glare
YawAngle *
RollAngle *

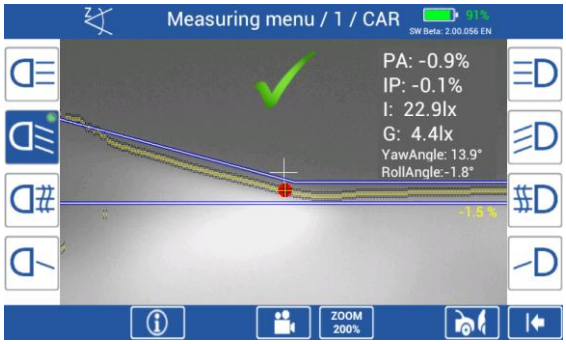
* Display of Yaw and Roll angle can be additionally activated under ‘User settings > Meas. Value Angles’.

New vehicle, measurement values are discarded

Switchover to continuous measurement:
image is permanently re-evaluated

Switchover to static measurement:
image is evaluated only once

4.5.1 Measuring Menu: Zoom Function

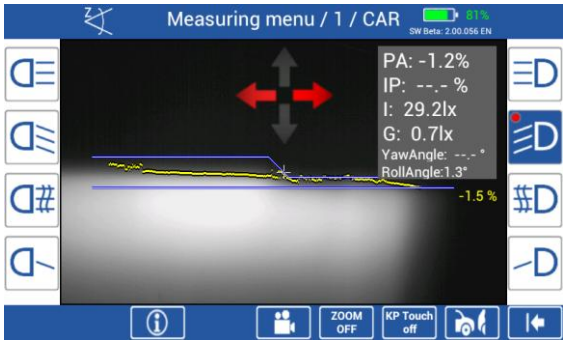


The function can be activated by pressing the ZOOM button.

The light image can be magnified up to 300 % by repeatedly pressing the button.

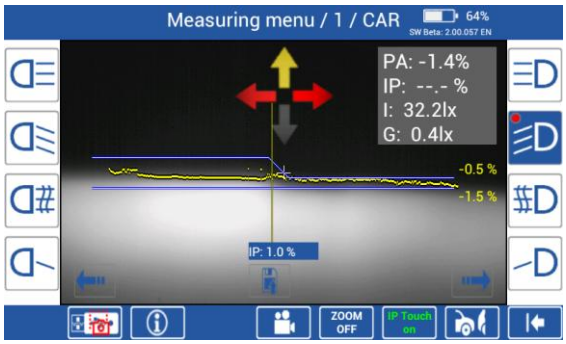
In the User settings, the zoom function can be enabled/disabled and adjusted from 150 % to a maximun of 300 %.

4.5.2 Measuring Menu: Manual Inflection Point Function



If the inflection point is incorrectly or not recognised (red arrows to the left and right), the inflection point can be set manually.

Press this button to activate the manual inflection point function.



The inflection point can be set by tapping the touch display in the area of the light image.
The yellow vertical line can be adjusted exactly to the inflection point using the arrow buttons.
The following buttons are available for this purpose:

Move vertical line to the left

Move vertical line to the right

Save inflection point, ‘Change is marked’

The manual inflection point function can be enabled/disabled in the ‘User settings’.

4.5.3 Quick Mode

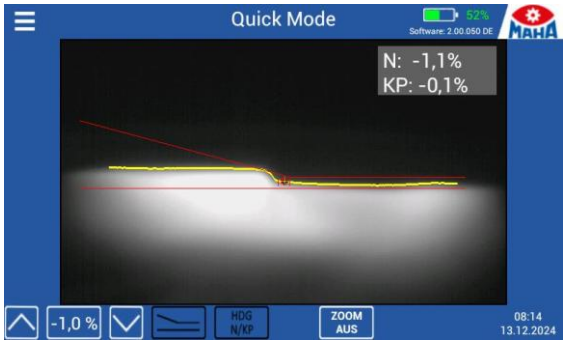
Quick mode is used to quickly check the low beam. Here, the headlight tester is permanently in measuring mode.

The display of the cut-off line and the result values for pitch angle and inflection point can be switched on and off using the ‘Measurement results ON/OFF’ button.

The ‘Corridor ON/OFF’ button can be used to show and hide an adjustable corridor.

In general, the result is not evaluated in Quick Mode. If Quick Mode is activated, the headlight tester starts directly in this view when it is switched on without preselection.

For enabling/disabling see section ‘User settings’.



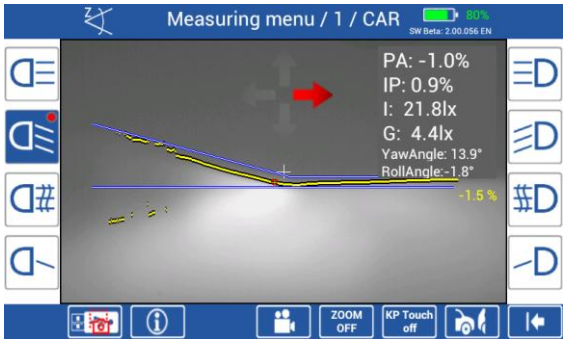
Using the Up/Down buttons, the target value can be adjusted in the range from –1.0% to –1.2%.

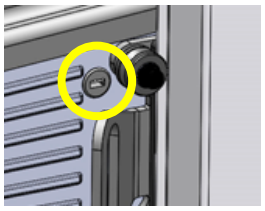
Button shows/hides the corridor for the cut-off line and the limit markings for the inflection point.

Button shows/hides the cut-off line and the result values for pitch angle and inflection point.

4.5.4 Saving the Measurement Values to PDF

At completion of the headlight measurements, the results can be saved as PDF file to a USB stick.





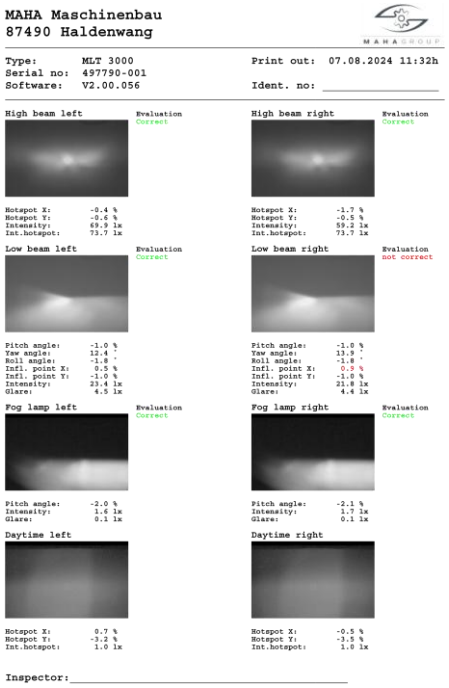
Connect the USB stick to the USB port at the outside of the casing.

Press the USB button.

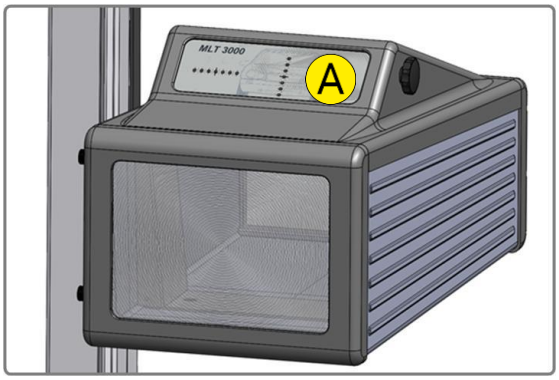
The USB button only appears in the measurement and adjustment menu when a USB stick is recognised by the headlight tester.

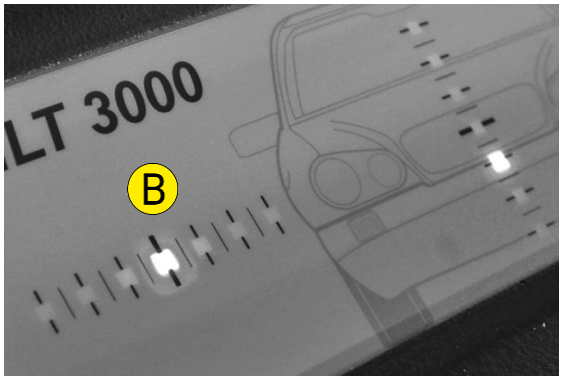
The test values are available in folder ‘MLT3000 Results’ with date and time stamp, for example: ‘TestvaluesDDMMYYYY_123456.pdf’.

The two lines of the customer header can be edited in the variables, section ‘Customer variables’.



4.5.5 LED Adjustment Aid (Option)





This optional unit is integrated into the window casing (A) above the Fresnel lens. The colour LEDs (B) pointing toward the vehicle indicate the direction of adjustment.

Green LED = Optimum setting
(corresponds to green evaluation in the display centre)

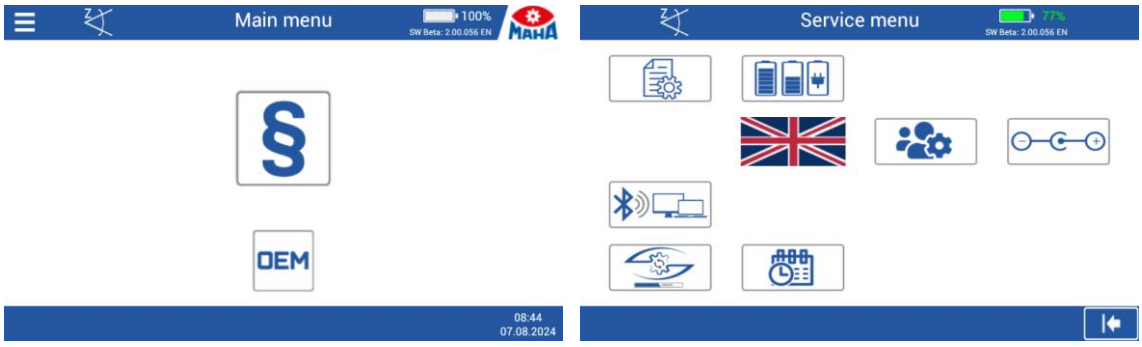
Yellow LED = Minor deviation within tolerance range
(corresponds to yellow direction arrows on the display)

Red LED = Outside tolerance
(corresponds to red direction arrows on the display)

To use this function, activate continuous measurement by pressing this button.

4.6 User Menu

Press the hamburger menu button (top left in the main menu) to open a list with functions available for the user.



User settings

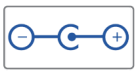
Customer variables

Bluetooth ‘PC connection EUROSYSTEM software’

Software update MLT 3000/3000V2 via USB stick

Battery status check

Date/time adjustments

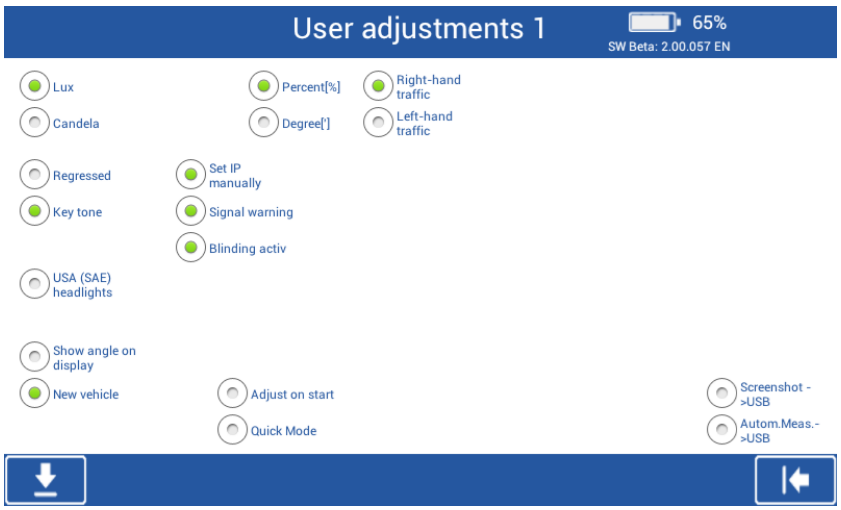


AD converter values (inclination, temperature, battery voltage/ current)

By tapping the flag button, additional languages are displayed for selection.

4.6.1 User Settings

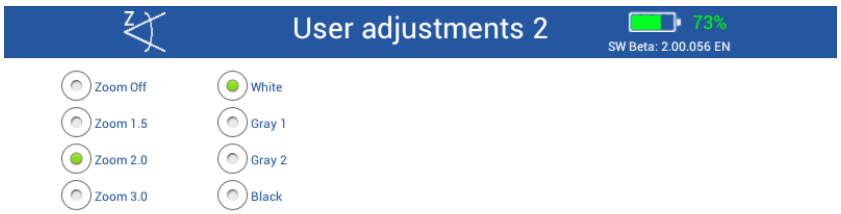
Enables access to the most important functions.



Lux Candela	Choose unit of intensity.
Percent [%] Degree [°]	Choose unit of pitch angle and inflection point evaluation.
Right-hand traffic Left-hand traffic	Switch between right- and left-hand traffic.
Regressed	Display straight line instead of point cloud of light-dark cut-off.
Key tone	Activates acoustic message when tapping the display buttons.
Set IP manually	Activates button to manually set the inflection point in the measurement.

Signal warning	If the headlight tester is moved while the battery is being charged, a warning is issued on the display.
Glare active	Activates measurement of low-beam glare.
USA (SAE) headlights	Switch over to evaluation according to SAE standard (VOR/VOL).
Show angle on display	Activates determination of yaw and roll angle.
New vehicle	Activates this button in the measurement screen; button discards all measurements and directly opens the main menu.
Adjust on start	Measurement always starts with continuous evaluation.
Quick Mode	See section ‘Quick Mode’.
Screenshot >USB	Activates button to save a screenshot to a USB medium during measurement.
AutoMeas. >USB	Exports measurement results automatically to a USB medium.

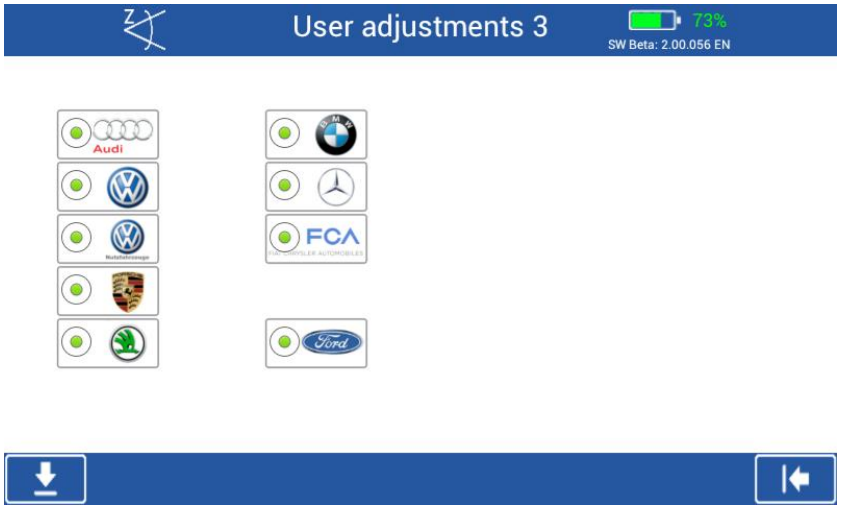
Switch to next page of settings.



Zoom Off Zoom 1.5 Zoom 2.0 Zoom 3.0	Switch on/off zoom function in measurement menu and enable 1.5- to 3-fold magnification.

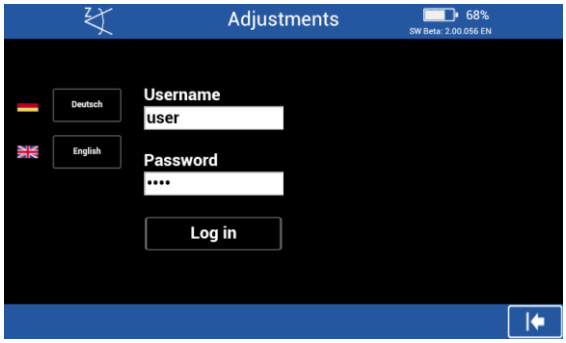
White Grey 1 Grey 2 Grey 3	Choose background colour of display.

Switch to next page of settings.

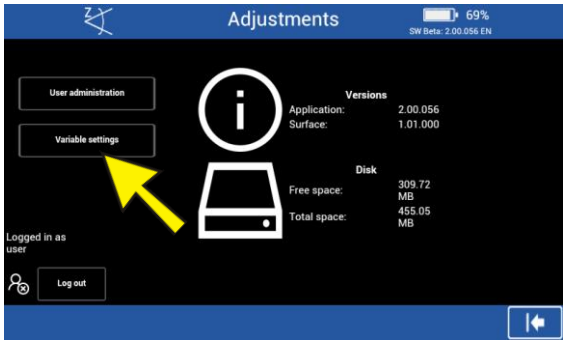


Choose vehicle manufacturers to be available in OEM menu.

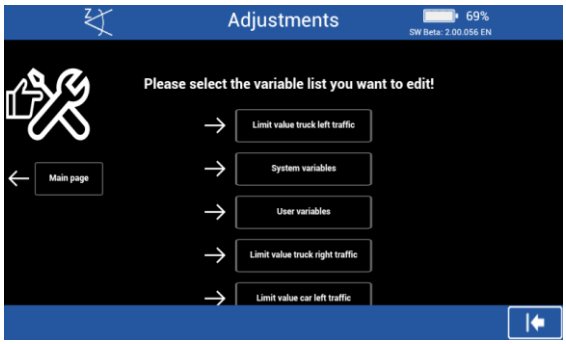
4.6.2 User Variables



Enter user name ‘user’ and password ‘0000’ to open the variable settings.



Tap button ‘Variable settings’ to open them.

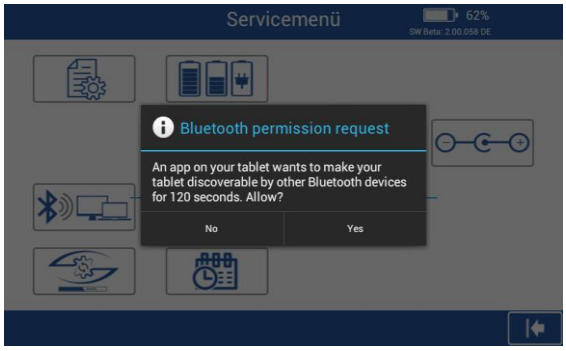


All variables can be viewed, but changes are only possible for the ‘User variables’.

4.6.3 PC Connection via Bluetooth

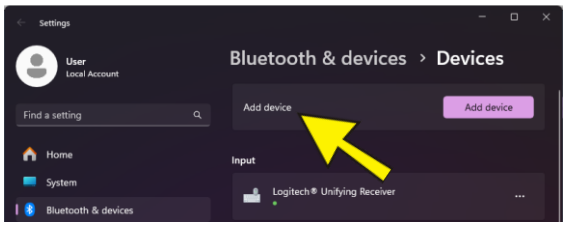
- Wireless connection via Bluetooth, MAHA order number: VZ 990312
- Using these interfaces, a connection can be established with MAHA's EUROSYSTEM software (only in conjunction with V7.50.xxx or higher). Download available at: https://www.maha.de/en/software/downloads

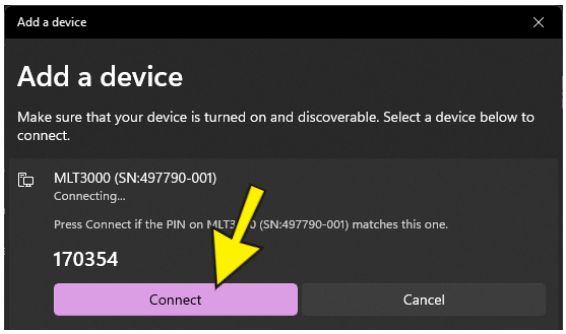
A Bluetooth stick must be connected to the headlight tester for the button to be visible. Pressing the button starts pairing mode.



Confirm the request with 'Yes'.
The headlight tester is now discoverable by other Bluetooth devices for 120 seconds.

Open the Bluetooth settings on the computer > 'Add a device'.

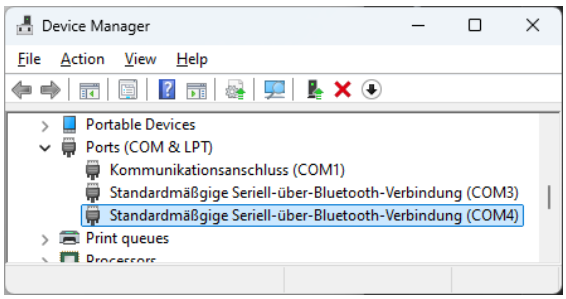




Choose the discovered headlight tester and click on 'Connect'.

At the headlight tester, confirm pairing.

The device is now ready for operation.



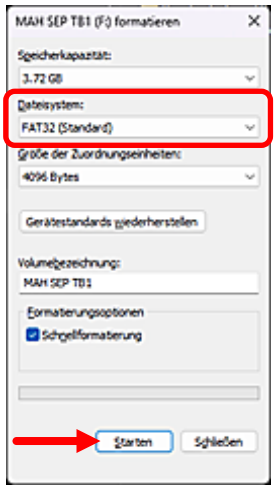
Open the Device Manager and check the COM interface for the Bluetooth connection under 'Ports (COM & LPT)'.

For setup in EUROSYSTEM see section 'EUROSYSTEM Settings'.

4.6.4 Software Update

Software updates are performed using a USB stick (FAT32 format).

1 Format the USB stick in FAT32:
Connect the USB stick to the PC, open the Windows Explorer, right-click the USB stick and choose “Format”. In the following window under File system: choose “FAT32 (Standard)” and “Start”.

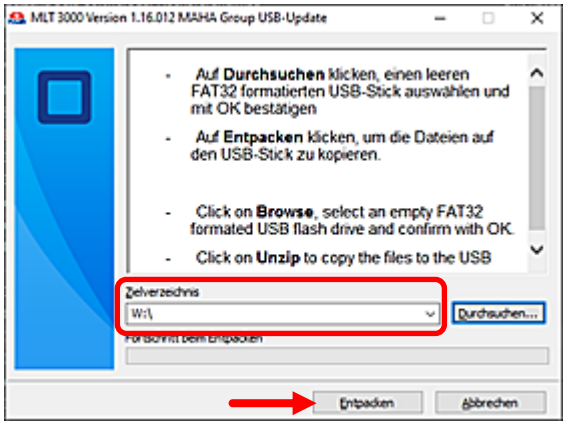


INFO
– Maximum data carrier size for FAT32 is 32 GB.
– Formatting permanently deletes all data on the USB stick. If necessary, carry out a data backup beforehand!

2 Download the software update to the PC from the MAHA homepage:
https://www.maha.de/en/software/downloads

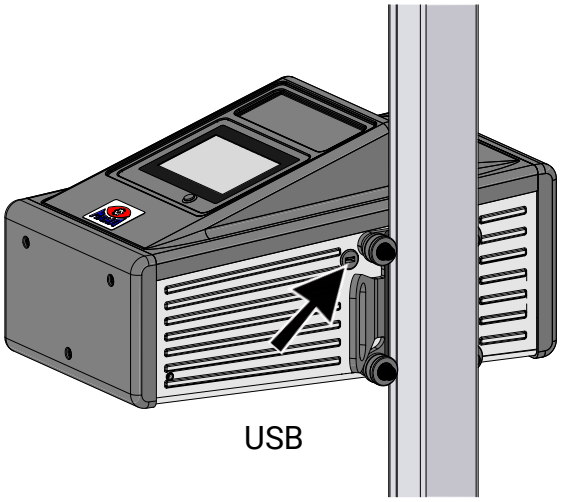
3 Execute the downloaded file by double-click. Click “Browse“ and choose the USB stick (e.g. W:\). Confirm with “OK“.

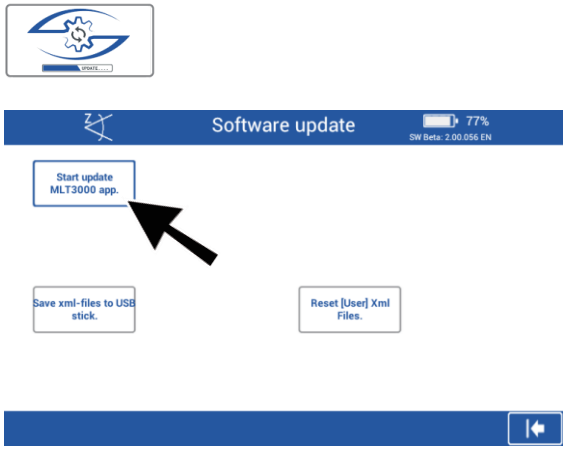
4 Click “Unzip“, then check if folder “maha“ is on the USB stick.



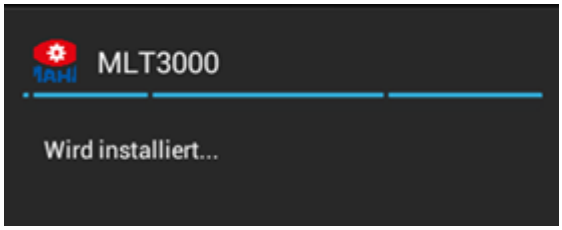
5 In the Windows Explorer, right-click the USB stick and choose “Eject”. Remove the USB stick from the PC.

6 Connect the USB stick to the USB-A port outside at the casing and start the update.

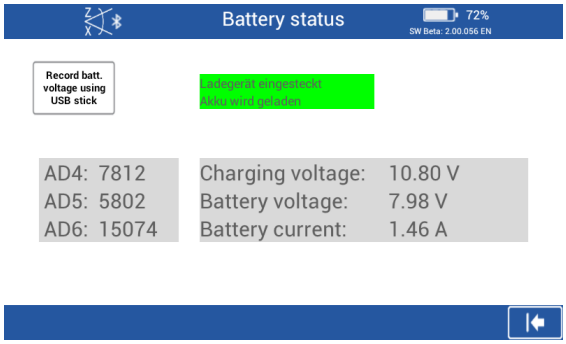




7 Wait until installation is complete and the software has been restarted.



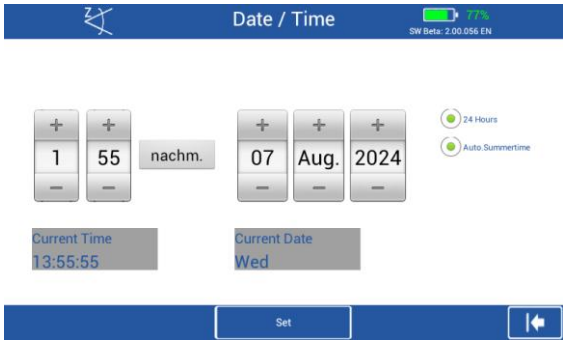
4.6.5 Checking the Battery Status



Possibility to check

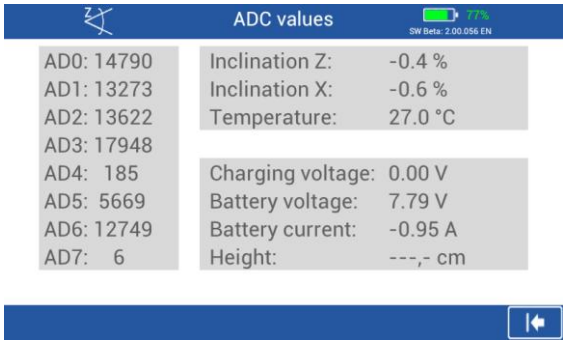
- Charging and battery voltage
- Current from battery (negative value)
- Current to battery (positive value)

4.6.6 Setting Date and Time



Date and time settings can be corrected here.

4.6.7 Reading the AD Converter Values



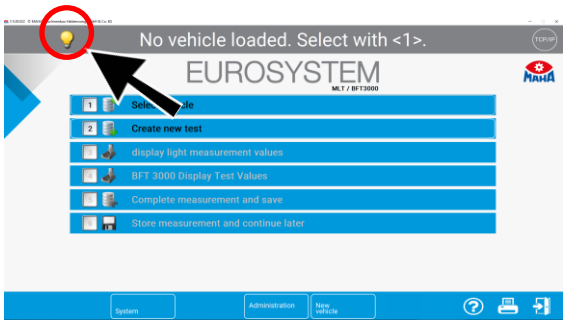
Specific raw values of the AD converters can be viewed here.

4.6.8 Selecting a Language

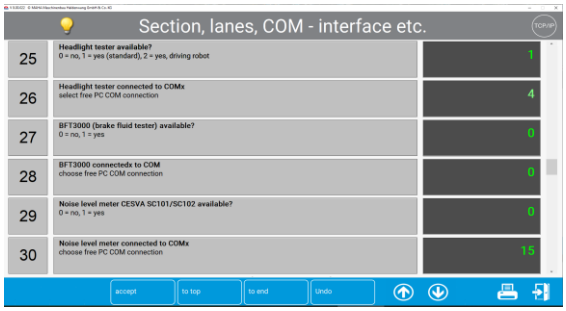
Several display languages are available for selection here.

INFO
The test procedure is not affected by the language chosen.

4.7 EUROSYSTEM Settings

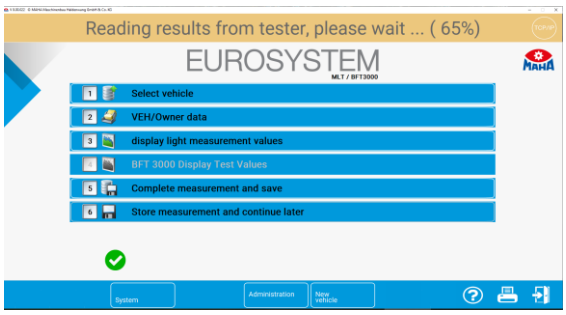


EUROSYSTEM connection:
After the connection has been established, the yellow indicator lamp is ON. A Bluetooth symbol appears in the info bar of the headlight tester.



Set variables using
'System' >
'Settings' >
'Section, Lanes, External Devices'

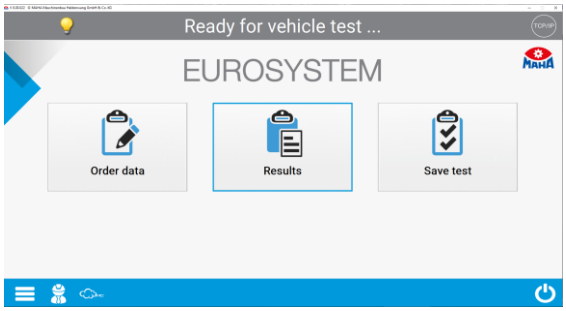
Var. 1 = 100 (standalone device only)
Var. 25 = 1
Var. 26 = COM port (see Device Manager)



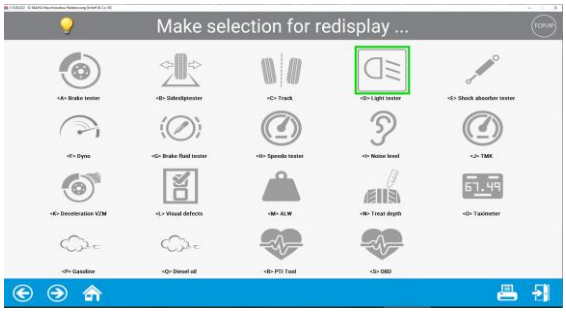
Reboot EUROSYSTEM. Test devices are connected automatically.

After the measurement has been started, all measurement values are transferred to EUROSYSTEM.

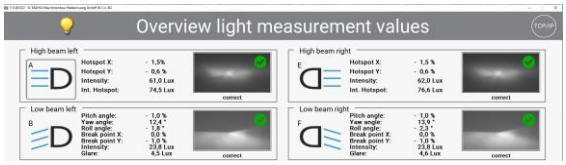
The connection to the headlight tester is retained until EUROSYSTEM is quit.



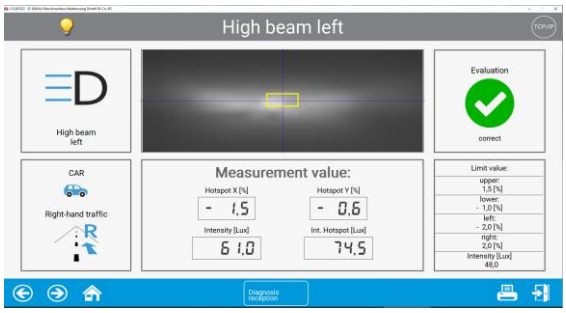
To display the measurement values, select menu item <Results>.



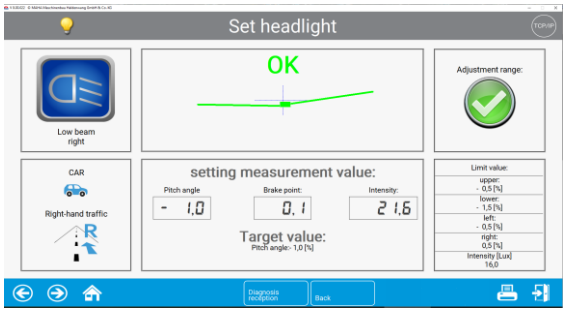
Select menu item <Light tester>.



An overview of the measurement values appears. Select the desired measurement.



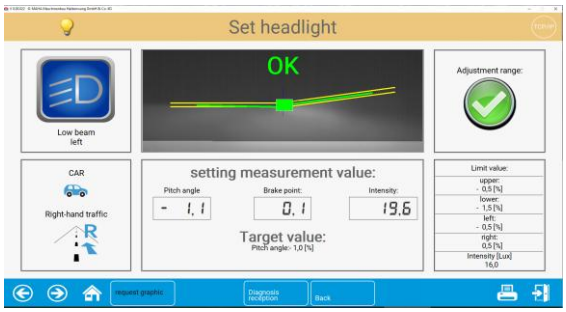
The selected measurement data is displayed in detail.



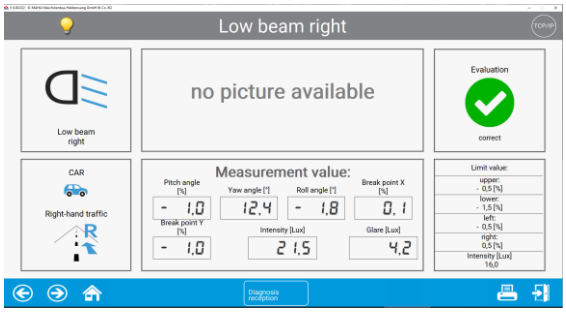
Adjusting the headlights:

Use the camera button on the headlight tester display to switch over to headlight adjustment.

EUROSYSTEM shows the coordinates, the measurement values and the headlight image in real time.



The headlight image graphics can be updated manually using the <Request graphic> button.

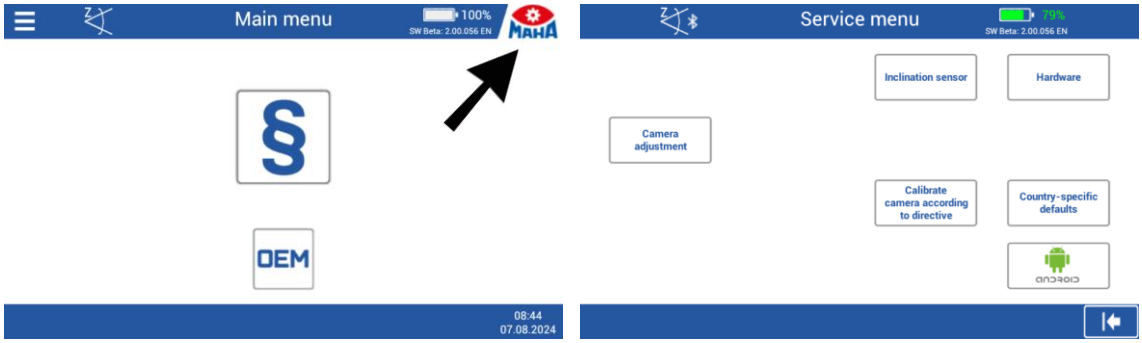


The image transmission can be completely disabled via soft DIP.

System > Settings > Softdips Display/Printout > No. 14

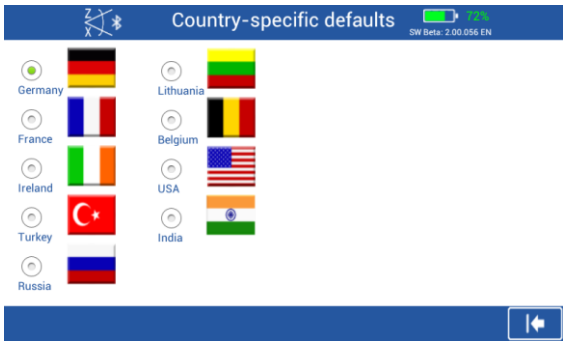
4.8 Service Menu

Open the Service menu by tapping the MAHA logo in the Main menu.



Inclination sensor	Adjust inclination sensor: “Menu item accessible with technician password only”
Camera adjustment	Camera adjustment: “Menu item accessible with technician password only”
Calibrate camera according to directive	Without password entry, compensation values can be only reviewed using button “Calibrate camera according to directive”.
Country-specific defaults	Legislation, limit values and country-specific settings: After switchover, returning from some country procedures is possible only with technician password.
android	Change to Android operating system: “Menu item accessible with technician password only”

4.8.1 Country-Specific Defaults



Country-specific defaults

This button can be used to make country-specific settings (legislation, limit values, test requirements etc.).

INFO

After switching over, returning from some country-specific procedures is possible only with technician password.

5 Energy Management and Troubleshooting

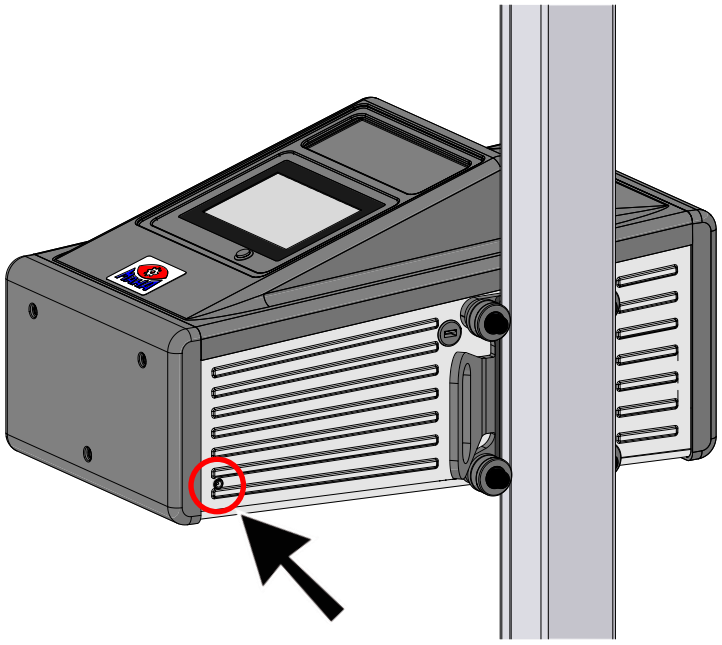
5.1 Charging the Battery

The charger plug is plugged into the round hollow plug socket on the side of the housing (see illustration).

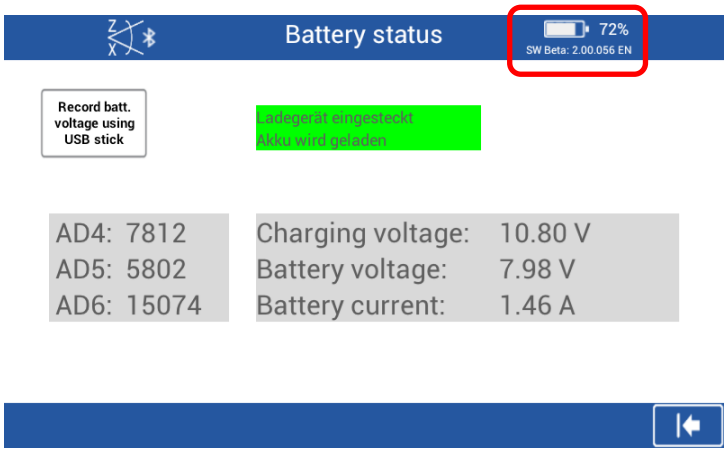
If the ‘cable connection’ option (VZ 990312) is installed, the power supply and data transmission take place via the XLR plug on the underside of the headlight tester. In this case, the hollow plug socket is not connected.

NOTICE

Simultaneous operation of both connections is not permitted!



A normal charging process takes approx. 11 hours. The full battery capacity is reached when the charging current has dropped to 0.00 A.



INFO

The battery indicator at the top right of the touchscreen only roughly corresponds to the battery charge level.

5.2 Battery Status

5.2.1 Battery Life

The battery has a nominal capacity of 13,400 mAh and allows up to 15 hours of continuous operation in the workshop at an optimum ambient temperature of 20 °C.

5.2.2 Display of Charge Level

The charge level is calculated via the current drawn or supplied. This function is only available once the battery has been fully charged, as the actual battery capacity must be determined by the electronics.

After disconnecting the charger, a plausibility check is carried out once for each device start. The calculated total amount of energy [mAh] is compared with the battery voltage.

If these values do not match, the charge level is determined in 10% increments (5%...95%) based on the battery voltage. The value for the stored energy is also replaced by a preset default value. Although this method is not strictly accurate, it guarantees a reliable charge level display in every operating situation, even when the battery is replaced.

5.2.3 Energy Saving Function

The display dims after 10 minutes of inactivity. The device is immediately ready for operation again by touching the touchscreen. After 120 minutes without activity, the device switches off completely and must then be switched on again manually. These default settings can be customised in the user variables.

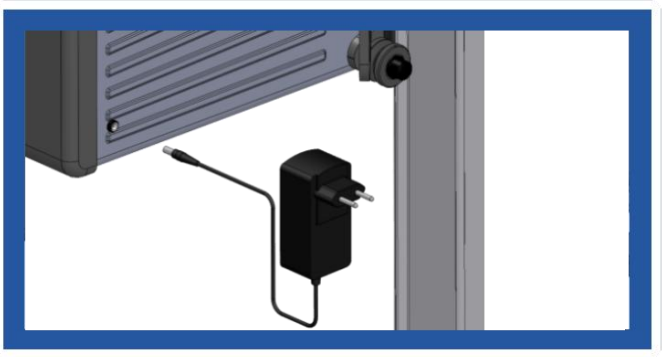
5.2.4 Protection against Deep Discharge

To prevent deep discharge of the battery, the device switches off at 6.6 V remaining capacity. The switch-off is independent of the capacity display. The battery itself has an additional undervoltage switch-off at a cell voltage of 2.4 V.

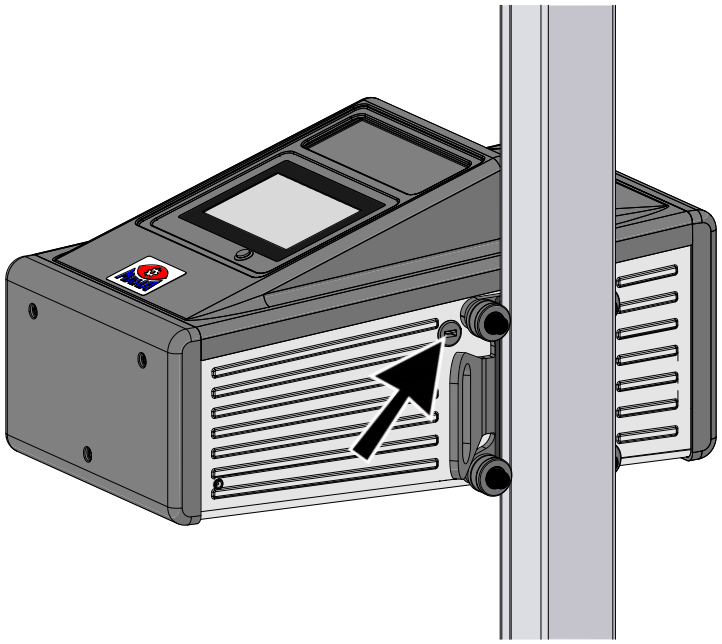
5.2.5 Protection against Mechanical Damage

If the device is set in motion with the charger connected, the following image appears on the display with an acoustic warning signal.

(Only if the warning is activated, see section ‘Operation > User menu’).

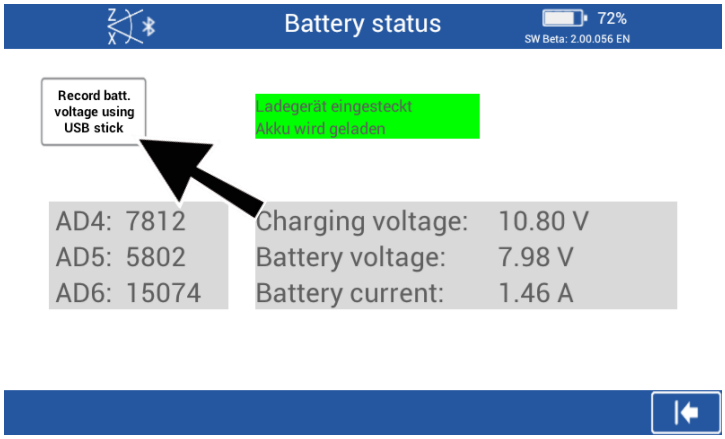


5.3 Data Recording for Error Analysis



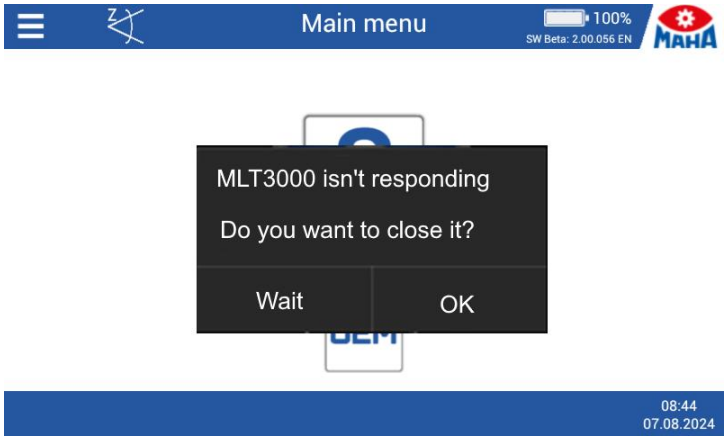
To record this data, a USB stick is required, which is plugged into the USB-A socket on the outside of the housing.

INFO
When recording is active, the device does *not* switch off automatically after 2 hours.



The recorded battery status data enables optimum analysis in problem cases.

5.4 Troubleshooting



This message may appear after updating older software versions. Acknowledge with ‘Wait’.

6 Maintenance

6.1 Safety Instructions

NOTICE

- The device must be cleaned at regular intervals. Only clean the lens with a soft cloth and glass cleaner.
- Do not use high pressure or steam pressure equipment or harsh cleaning agents for cleaning.
- All service work must be performed by service technicians employed by the manufacturer or by authorised service partners.

6.2 Spare Parts

To ensure safe and reliable operation, only use original spare parts supplied by the equipment manufacturer.

7 Disposal

If you want to dispose of the equipment, please contact your MAHA dealer or the following address, indicating equipment type, date of purchase and serial number:

MAHA SERVICE CENTER | Maybachstraße 8 | 87437 Kempten | Germany

☎ +49 8374 585-100
service@maha.de
www.mahaservicecenter.de

Alternatively, you may take the equipment to a specialised waste management plant to ensure that all components and operating liquids are properly disposed of.

7.1 Disposal of Batteries

As a distributor, MAHA is obliged to take back aged or defective lithium-ion batteries. However, to reduce costs and effort, it is advisable to return them to a local waste disposal company.

8 Declaration of Conformity

See following page(s).

Original-EU-Konformitätserklärung
Original EU Declaration of Conformity

CE381001-de-en

MAHA SE & Co. KG

erklärt hiermit als Hersteller in alleiniger Verantwortung, dass nachstehend bezeichnetes Produkt in Konzeption und Bauart den grundlegenden Sicherheits- und Gesundheitsanforderungen der hier genannten Richtlinien entspricht.
Bei Änderungen am Produkt, die nicht von oben genannter Firma genehmigt wurden, verliert diese Erklärung ihre Gültigkeit.

herewith declares as a manufacturer its sole responsibility to ensure that the product named hereafter meets the safety and health regulations both in design and construction required by the directives stated below.
This declaration becomes void if any change is made to the product that was not approved by named company beforehand.

Typ | Model — **Serialnummer | Serial Number**

MLT 3000 2.0 ..... VP 185081
MLT 3000 2.0 P ..... VP 185082
MLT 3000 2.0 F ..... VP 185083
VAS 621 001A (MLT 3000 2.0) ..... VP 185084
VAS 621 001A (MLT 3000 2.0) USA ..... VP 185085

Bezeichnung | Designation

Scheinwerfer-Einstell-Prüfgerät — Headlight Tester

Richtlinien | Directives

2014/30/EU
2014/35/EU
2011/65/EU

Normen | Standards

EN ISO 12100:2010
EN 60204-1:2018
EN IEC 61000-6-3:2021
EN IEC 61000-6-4:2019

Gesetze | Regulations

Produktsicherheitsgesetz ProdSG — Product Safety Act ProdSG

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen
Person Authorised to Compile the Technical File

Ralf Kerkmeier • MAHA SE & Co. KG • Hoyen 20 • 87490 Haldenwang • Germany

Haldenwang, 2025-11-17

Dr. Peter Geigle
Geschäftsführer | Managing Director

Muster | Sample