Lightning aligment device Logic - analog measurment - (Measurement in kcd, according to law and regulation MTBiGM)

Manual

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ACCEPTANCE OF THE MACHINE

At the time of delivery it is essential to check at once and make sure you have received all the material indicated in the shipping documents and that the machine has not undergone damage during shipment. In this case, show the damage to the forwarder and inform our customer service department. Only if you proceed promptly in this way will it be possible to obtain any missing material and reimbursement of the damage.

FOREWORD

This is a device designed for correct headlight beam alignment of any motor vehicle.
The machine must be used for this purpose only. Even the finest of machines can function properly and ensure profitable service only if used correctly and kept in the best possible condition. For this reason, we ask you to read this manual with care and to reread it whenever difficulties should arise in using the machine. In case of need, we remind you that our service centers, organized in cooperation with our retailers, are always at your disposal for any advice you may need.

NOTE: the manufacturer may decide to make changes in the device without notice, in order to adapt it to technological advances and specific production or installation needs. Therefore, even if the illustrations shown in the manual differ slightly from the machine in your possession, the safety and instructions about it are guaranteed.

TECHNICAL DATA	U/M	
Width	mm	600
Length	mm	670
Height	mm	1740
Weight	kg	30
Minimum working height	mm	240
Maximum working height	mm	1410

SYMBOLS USED IN THE MANUAL

Warning symbol
Read the sections preceded by this symbol with particular care, for the safety of the operator and the machine.

PREPARATION OF THE MACHINE

HANDLING CRATED MACHINE

The machine is packed in a special crate divided into three parts.

- Optical box, mirror visor
- Base, handle.
- Column complete with slider.

Every part is, in turn, separately packed.

Do not stack more than two crates.
The packed weight is 30 kg.
The external dimensions are:

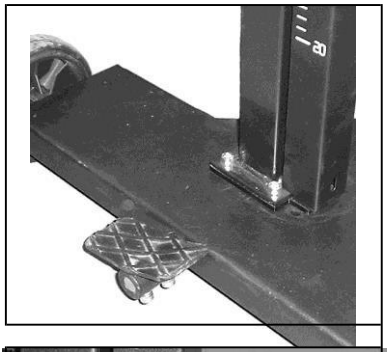
W: 630 mm
L: 1720 mm
H: 310 mm

HOW TO UNPACK THE MACHINE

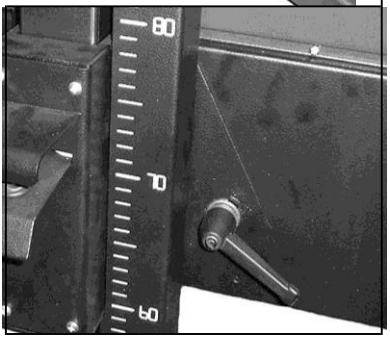
Open the crate from the top and remove the parts.
Keep the crate for possible shipping needs.

DESCRIPTION OF THE MACHINE

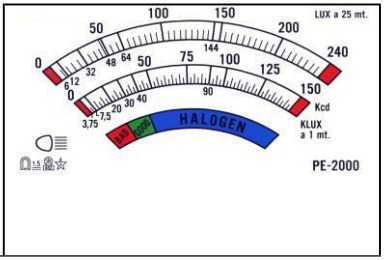
The headlight beam tester is a unit for testing the headlight beam of motorcycles, vehicles and heavy vehicles.
The unit can be installed on a rail track (with a sliding movement aside) or on plastic-wheels.
The column could be turn to be aligned to correspondence to the vehicle.



The optical chamber is adjustable in height by means of slides on precise, silent, plastic runners on a column marked with a centimeter scale for exact positioning with respect to the headlight.



The analogical instrument is equipped with three scales, two of which are graduated and one colored.



The visor that facilitates the alignment of the device to the vehicle is a mirror type.

GENERAL SAFETY RULES

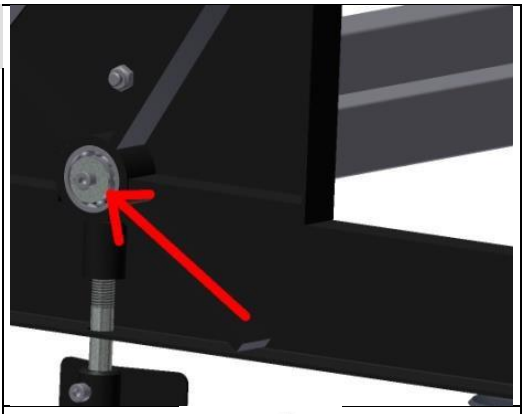
The following rules must be followed carefully to prevent damage to the operator and machine.

- Read the machine labels, do not cover them for any reason, and replace them immediately if they should be damaged.
- The device should only be used by authorized personnel, trained in its use.
- Do not use the device in an explosive atmosphere.
- The working environment should be dry and sufficiently ventilated.
- When moving the machine, pay attention to other people, especially children, in the vicinity.
- Do not bump shelves or scaffoldings where there may be a danger of falling objects: you and the machine could be hurt.
- The storage temperature should be between -5° and +55°C.
- The working temperature should be between +5° and +45°C.
- Provide an adequate exhaust system for the exhaust gas, since the headlight test must be performed with the engine of the motor vehicle running. Accidental inhalation of carbon monoxide can cause serious damage to the organism, with a fatal outcome in some cases. Contact our agent in your zone, who can indicate the most suitable system for your company.
- Do not leave the headlight tester in the sun or in the immediate vicinity of hot objects like heaters, radiators, etc.
- Do not leave the headlight tester out in the rain or in an excessively damp place as its electronic circuits could be damaged.
- If the headlight tester will not be used for a prolonged period, we recommend that you cover it with its dust cover (optional).
- There is a battery in the headlight tester that could cause a fire or explosion hazard if handled improperly. To prevent this risk do not heat or use open flames near the battery and, when replacing it, use one with the same characteristics.
- When you encounter any malfunction in use of the machine, contact the retailer or send the machine to the nearest service center.
- In case of parts replacements, order ORIGINAL replacement parts from a concessionaire or authorized retailer.
- Tampering with any part of the machine will cause invalidation of the warranty.

PREPARATION OF THE HEADLIGHT TESTER

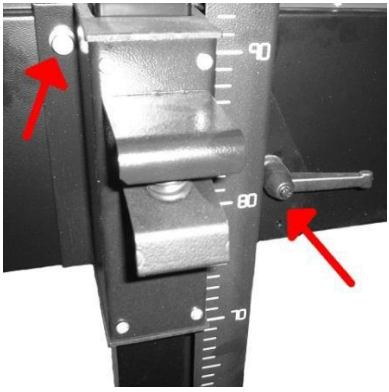
ASSEMBLY OF THE COLUMN ON THE BASE

Unpack the column and the base
Insert the lower pin of the column into the base and fix it by the screw and the washer



Check the column if is in the correct position like the picture beside

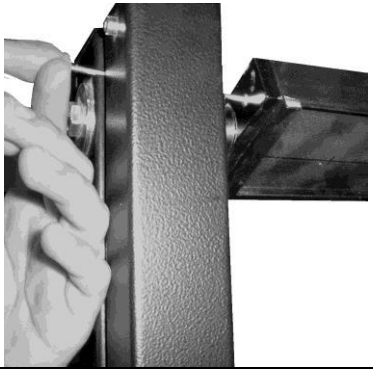
Fix the optical box by the screw and the washer, the lever and his washer



PREPARATION OF THE HEADLIGHT TESTER

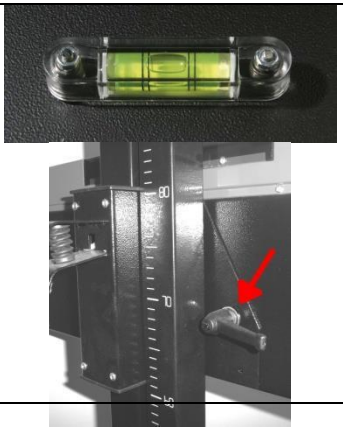
Bring the visor to the plate and to match both the fixing holes that the outer edges; tighten the two screws.
Do not mount the viewer shot (protruding from the main union) would be out of position.

The mirror visor is calibrated during the test phase with the respective equipment and therefore it cannot be mounted on other beamsetters.



Place the unit in the testing area, working floor must be flat. If it is not possible maximum inclination allowed is a 0.5%. Anyhow it is not suitable to test on irregular or not flat surface because adjustment could not be precise.

Check the bubble inside the optical box, if is not centered, adjust it by the external lever



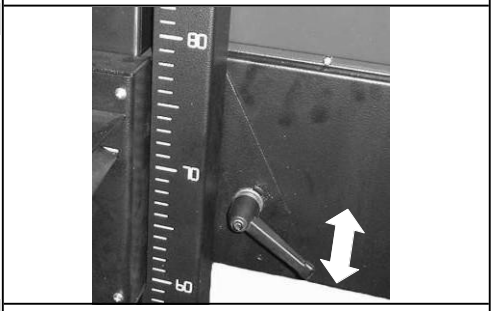
ALIGNMENT WITH THE VEHICLE

POSITIONING

Place the headlight tester in front of the right headlight of the vehicle at a distance of about 20cm, measure the height from the floor at the center of the headlight and adjust the optical chamber at the corresponding height using the graduated scale on the column. As index of the scale use the top of the sliding runner.

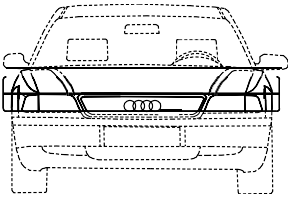
ADJUSTMENT

Make sure the optical chamber is horizontal by checking the level on the inside. If it is not perfectly horizontal loosen the lever shown in the figure and adjust the chamber position.

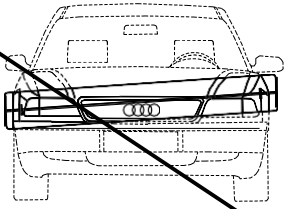


ALIGNMENT WITH THE MIRROR VISOR

Locate two details, on the front of the vehicle, that are perfectly symmetrical between them (for example the top of the windshield or the headlights themselves). Make sure the line of the visor crosses the two points taken as reference and, if not, turn the headlight tester until they do.



OK

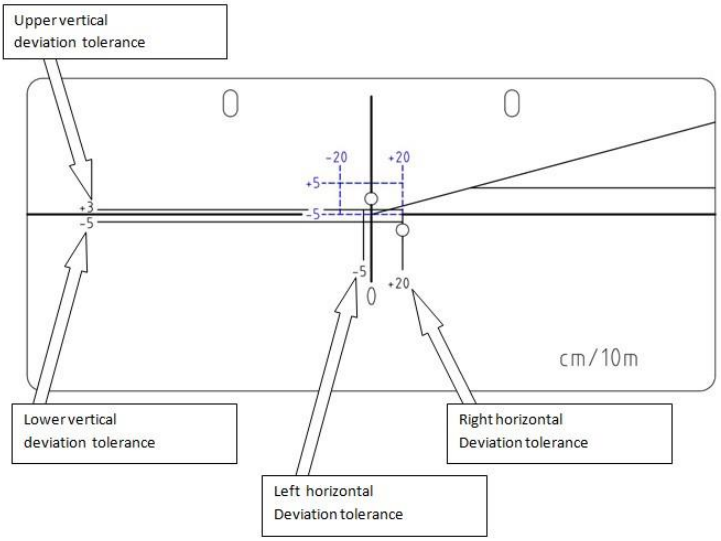


NO

HEADLIGHT TEST

ADJUSTMENT

Read at the top of the headlight the tilt indicated by the manufacturer, e.g. 1.2%, and turn the wheel on the bottom of the optical chamber as needed.

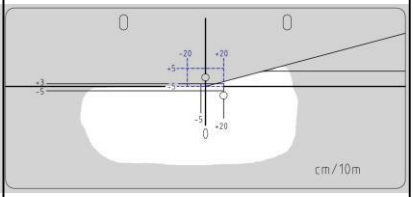


TESTING THE LOW BEAM HEADLIGHT

Check if the “elbow” of the projection in in the **tolerances of the horizontal orientation: 5cm/10m left or 20 cm/10m right.**

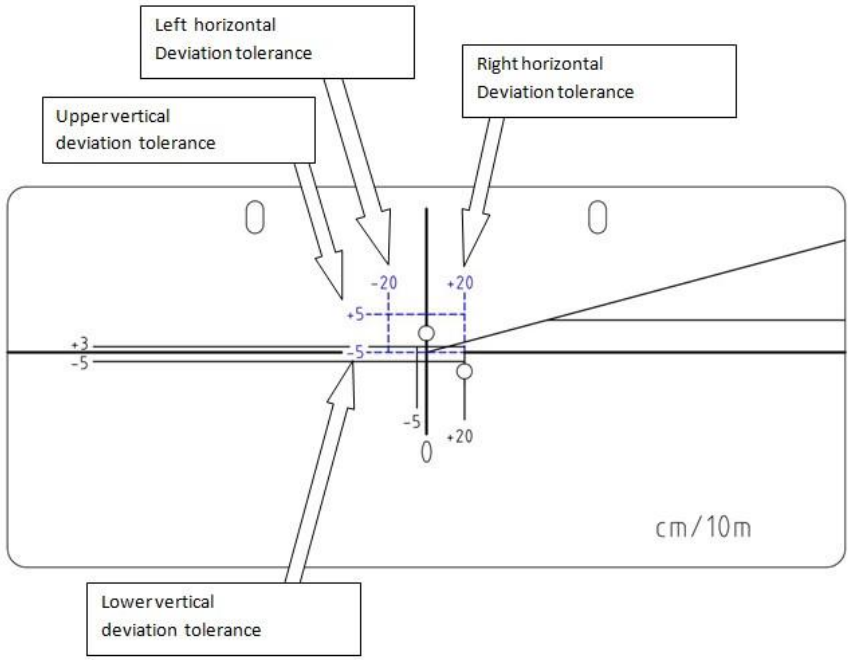
Now read the value of inclination in the rear knob of the headlight tester if the value correnspond at the car headlight value or is in the tolerances **of the vertical orientation: 3cm/10m up or 5cm/10m down**

If these values are inside the tolerances the position of the headlight is correct.

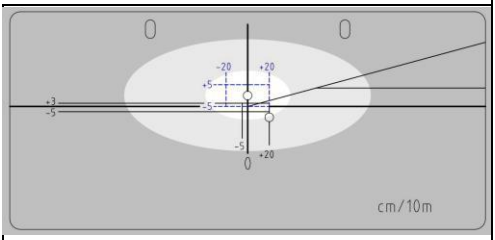


HEADLIGHT TEST

TEST OF THE HIGH BEAM HEADLIGHT

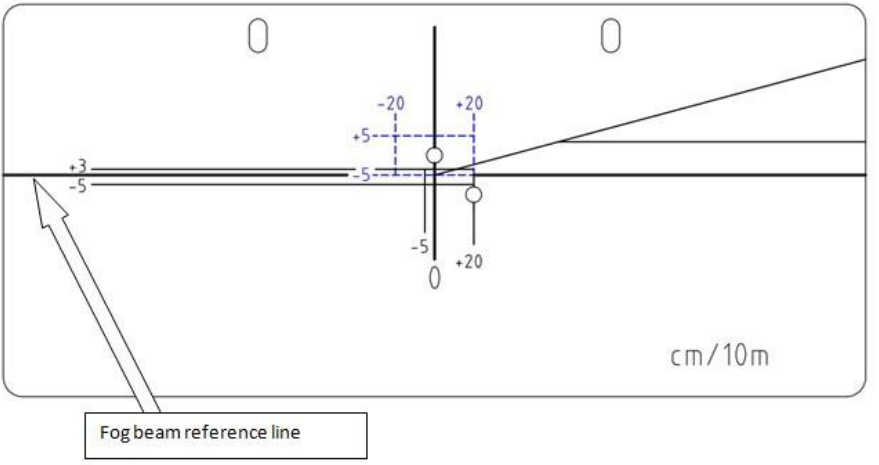


Check if the value is **>30 kCd for the cars** and **>12.5 kCd for the motorcycles**
Check if the maximum intensity zone of the projection is in the **tolerances of the horizontal orientation: 20 cm/10m left or 20 cm/10m right.**
Now read the value of inclination in the rear knob of the headlight tester if the value correnspond at the car headlight value or is in the tolerances **of the vertical orientation: 5cm/10m up or 5cm/10m down**
If these values are inside the tolerances the headlight is correct.

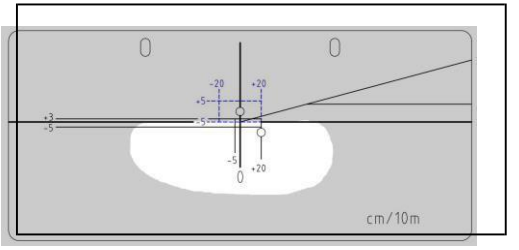


HEADLIGHT TEST

FOG LIGHT TEST



Check the position of the low beam projection on the aiming screen match the reference lines



SUPPLEMENTARY INSTRUCTIONS

CLEANING AND MAINTENANCE

The machine does not require particular maintenance other than normal cleaning with a damp cloth (water and alcohol, or normal detergent).

CAUTION!

Do not use nitro solvents

DEMOLITION AND DISPOSAL

The machine is mainly composed of steel.
Other parts:
in plastic, some parts
in cardboard and paper, packing and documents.
The machine is painted with scratch-resistant epoxy powder.
In disposing of the machine, comply with the provisions of the local authorities.

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