# **HEADLIGHT BEAM TESTER**

# ART. 2700/N

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MAINTENANCE AND INSTRUCTION MANUAL

# INDICE

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### GOODS ACCEPTANCE

At goods arrival, it is necessary to check goods quantity compliance with bill of loading or invoice and goods packing conditions for avoiding to realise damages during the transport later on. If damages occur, let the forwarder applies a reserve on your documents for the caused damages and get in contact with our export dpt. Only observing these few rules, it could be possible to replace damaged parts and ask for refund.

#### INTRODUCTION

The tester is made for testing and centring any type of

vehicle and motorcycle beam. The unit must be used only for the a.m. intent. Only a correct use of the unit can grant a profitable results. Read carefully this instruction manual and read it again every time that in using the machine problems or difficulties occur. For necessities, our authorised centres in connection with our dealers network will be available for all your inquiries.

**NOTE:** the manufacturer can modify at any time the unit under its own technical or quality necessities, or any other kind of necessity without any kind of advise. In this case these instruction manual pictures could be a little bit different from the unit you have, but safety conditions and information will remain the same.



TECHNICAL FEATURES	U/M	
width	mm	600
length	mm	670
height	mm	1500
weight	kg	30

# SYMBOLS USED

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 $\ensuremath{\mbox{warning}}\xspace$  read carefully each section signed with the symbol for machine and unit safe working conditions

# HOW TO PREPARE THE UNIT

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HANDLING OF THE PACKED UNIT The unit is packed in a specific carton box More than two packages can not be put on The weight is 30 kg. The overall dimensions:

**B**: 620 mm **L**: 1720 mm **H**: 310 mm

# UNIT ASSEMBLY

Fix the column (B) on the base (A) through the M8 screws supplied

Fix the visor (D) on the appropriate support (M).

Screw the sliding mechanism (C) on the optical box and the locking handle  $\,$  (L) on the lower right side of the optical box.





### **GENERAL SAFETY RULES**

The following listed rules must be strictly followed up to avoid any unit damages or operator risks:

- Read the labels on the unit; never cover the labels and replace them once damaged;
- The unit must be used by authorised and skilled personnel only
- ā Do not use the unit in explosive environment;
- ō Working environment must be dry and enough airy ;
- Keep away from children and not authorised people during the unit handling;
- Do not crash into shelves or frameworks to avoid objects fall;
- Environment temperature should be between -5°C and +55°C;
- Working temperature should be between +5°C and +45°C;
- Test the vehicle with the motor on, so provide an exhaust gas extraction system, because carbonoxide monosside is absolutely dangerous for human health. Get in contact with your area responsible so that he can suggest you the most suitable solution for your working area.
- Do not let the unit get in contact with heating system atf any time and do not leave the unit under the direct contact of solar rays;
- Do not leave the unit under rains fall or in humid environment, electronic circuits can be damaged;
- In case of not use of the unit, cover the optical box with no-dust appropriate plastic cover;
- Headlight beam tester is equipped with a battery, a wrong battery handling can cause fires or explosions. So, do not use heating system near battery allocation or any kind of flames. Replace the battery only with exact same characteristic battery unit.
- In case of mis-functioning of the unit, get in contact with the dealer or send the unit back to the nearest assistance centre;

- In case of parts replacement, use only ORIGINAL spare parts
- In case of parts modifications of the unit, warranty period will be immediately declined.

### HOW TO PREPARE

#### VEHICLE ADJUSTMENT

Be careful that headlight beams are cleaned and dry. When the vehicle is equipped with beams regulation system on board, just set it on "0" position. Check vehicle good positioning avoiding any kind of possible interference: snow, ice, mud, etc.... set vehicle wheels straight to the vehicle body. Be sure that vehicle body has not distortions. Check tyres right pressure. Switch on the motor and start testing. In case of pneumatic suspensions, switch on the motor five minutes before testing and test with motor on.



Testing in a closed working area, it is absolutely suitable to have the appropriate exhaust gas extraction system.

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#### WORKING SURFACE

Testing the headlight beams, 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.



# ALLIGNMENT TO THE VEHICLE

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#### POSITIONING

Set the tester in front of the right vehicle beam at a distance of 20 cm. Measure the height from the floor up to the beam centre and adjust at the same height the optical box though the graduated scale on the column.



# ALLIGNMENT TO THE VEHICLE

# MIRROR VISOR ALLIGNMENT SYSTEM

Find two symmetrical points on the forward car body (ex: the beams themselves). Move the tester in front of the car, turn the optical box till the two points will coincide with the black point drawn on the black line of the mirror visor.



# **HEADLIGHT TEST**

# **CHECKING PANEL**

The checking panel is fixed and it represents four horizontal lines. Lines aside are the numbers 1,2,3 and 4.

LINE 1 vehicles, lorries and motorcycles check (low beam) corresponding to -1% (1 cm/10 meters) LINE 2 vehicles, lorries and motorcycles check (fog beam) corresponding to -2% (2 cm/10 meters) LINE 3 trucks, buses (low beam) corresponding to -3% (3 cm/10 meters) LINE 4 trucks, buses (fog beam) corresponding to -4% (4 cm/ 10 meters)



Inclination value must be set under vehicle manufacturer instructions (for example: when 1.5% inclination is established, it means that operator must test the headlight using LINE 1 and LINE 2 as reference)

#### LOW BEAM TEST

Switch on low beam headlight, the light is projected on the checking panel. Check that line coincides with the appropriate line (see previous section); if it does not coincide, work on headlight positioning system till the projection will be exact.



# **HEADLIGHT TEST**

# DISLOCATED HIGH BEAM TEST

When high beams are not located in the same lodge of low beams, high beam test must be done centring the big light projection (see picture, aside)



LIGHT INTENSITY READING Switch on the high beam and read on the lux-meter the intensity value.



# SUPPLEMENTARY INSTRUCTIONS

# CLEANING AND MAINTENANCE

There's no particular maintenance operations to be done; just clean through a wet tissue (water, alcohol, standard or detergent fluid).

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# DISMANTLING AND DISPOSAL

The unit is mostly made by stainless steel components: Other parts: PLASTIC for some particular components; CARTON and PAPER, for packing and enclosed documents; UNIT PAINTING= stove enamelled powder. For unit disposal, follow local laws and regulations