

TKlamp TK2201 HeadlightTesterInstruction Manual (V1.2)

[Please note: this product is only used to compare and identify the differences between headlights. It is not used for measuring instruments and application purpose.]

I. Exterior View of Headlight Tester: as shown in Figure 1.



Fig.1

II. Description of Each Part:

1. Power output fuse holder: not used in this model
2. Accessory 1: multi-function test cable (alligator clip cable)
3. Mainframe power input terminal
4. Accessory 2: DC power adapter
5. DC12V regulated power output terminal
6. DC24V regulated power output terminal
7. DC12V power output voltage trimming knob
8. Fixing screw of headlight module test cover
9. Integral sphere fixing block
10. Integral sphere
11. Portable instrument box
12. Host fixing screw
13. Host

14. Integral sphere optical probe plug socket
15. Test power output terminal
16. Test power output switch
17. Conventional light source test port/cap
18. H4 module headlight test port/cover plate
19. headlight module test port/cover plate
20. Accessory 3: special headlight test cable
21. AC220V power input socket
22. AC220V power switch
23. Headlight aging cylinder (sealed)
24. Multi-function test cable alligator clip insulation holder

III. How to Use

1. Open the instrument box and remove the internal packaging. Turn the AC220V power switch (22) to the off state and firmly plug the power cord into the power socket. Check whether the output terminal (5 or 6) of the DC power supply (12v or 24v) is correctly connected with the power input terminal (3) of the host computer via the DC power adapter (4); Check the normal connection of the optical probe plug; At this time, turn on the AC power switch, and the display screen will display the power-on screen, and enter the working screen after 2 seconds.

2. Turn the test power switch (16) to OFF and check whether the voltage displayed on the screen matches the measured headlight. Remove the test port cap (18), insert the light source of the tested headlight into the test port and connect the cable (for the light source with polarity, check whether its positive and negative poles are connected correctly).

3. Turn on the test voltage switch, and the headlight should be on normally. At this time, the corresponding test parameters are displayed on the display screen: luminous flux, light efficacy, voltage, current and electric power.

4. If it is necessary to detect the electrical power and luminous flux maintenance rate of the headlight, the light shall be continuously lit (generally 5-10 minutes). During the continuous lighting, the headlight shall be placed in the (sealed) headlight aging cylinder (23). When it is necessary to read parameters, insert them into the integral sphere test port.

5. After the test, turn off the power switch, remove the tested headlight, restore the test port and cover plate on the integral sphere, and put the external AC power cord into the box before closing the instrument box.

IV. Function Introduction

Same screen display and easy to see: TK2201 headlight tester is specially designed for rapid testing of the photoelectric parameters of the headlight. It can quickly test the luminous flux of the whole headlight, total light efficacy, input voltage, current, electric power and other parameters of the headlight on site, so as to facilitate the identification and comparison of the photoelectric indicators of different headlights.

Touch screen quick test and display: adopt advanced digital detection technology and touch screen display operation technology. Quickly detect and display photoelectric parameters.

Stable and reliable: high-quality thick pure copper wire and terminal blocks are used internally, with low contact resistance and high stability.

Unlimited headlight test: the power supply adopts a convenient single power supply mode, with a wide voltage design, and the host power input range is from DC10V to DC32V, which can meet the test power supply requirements of normal headlights.

Wide range of test: this instrument can test the conventional light source of the headlight. Through the change of the test port, it can also test the H4 lens module and the conventional bifocal lens module.

V. Other Ways of Use

1. TK2201 headlight tester can be used for portable on-site operation and detection, and also for rapid detection of products in the laboratory or headlight production line.

When used in a fixed place, the integral sphere and the host can be removed from the portable box and placed on the desktop for use. At this time, additional power supply needs to be configured. Normal DC power supply (10V~32V) can be used. The power supply voltage needs to match the tested light source.

The maximum measurable electric power is 100w.

Diagram for desktop use: as shown in Figure 2.



Fig.2

2. Use Method for No AC Power Supply on Site:

When there is no AC voltage around or it is not convenient to plug in the AC power supply, a 12v charger (headlight charger) specially designed by TKlamp for headlight detection can be used to provide a short time power supply for the tester. You can also use ordinary batteries to provide power.

VI. Precautions for Use

1. For the convenience of users, the instrument power supply and test power use the same power supply, and the instrument power consumption is 3~4w. The voltage, current and power displayed on the screen are the electrical parameters of the tested headlight, excluding the power consumption of the instrument itself.

2. The terminals connected to the instrument have "positive and negative" polarity. Please pay attention to correct connection when connecting cables.

3. When the headlight needs to be lit for a long time, do not put the light in the integral sphere for a long time, but can put the lighted headlight in the headlight aging tube next to it. (If the high-power headlight is placed in the integral sphere and lit up for a long time, it will generate large heat, which will accelerate the aging of the reflective coating in the integrating sphere for a long time, and affect the test accuracy.)

VII. Service

After the instrument is powered on, it will enter the power-on screen and automatically enter the test screen after 2 seconds. Before entering the test screen, if you click the boot screen, the screen will be in still. Scan the QR code on the screen with the mobile browser to enter the headlight detection service page of TKlamp. There are detailed service guides and contact information.

VIII. Instrument Calibration and Date and Time Modification

Scan the startup QR code, enter the service page, and contact the service person.

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