





# Linshang LS110A,LS110H Split Transmission Meter User **Manual**

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Linshang LS110A,LS110H Split Transmission Meter



## Specifications:

• Dimension: 130mm \* 70mm \* 84mm (L \* W \* H)

· Weight: 630g

• Resolution: 0.1% for measured value 40mm \* 40mm

• VL wavelength: 380nm-760nm, CIE function of photopic vision

• UV Peak wavelength: 365nm

• IR Peak wavelength: 940nm/1400nm

• Power supply: built-in lithium rechargeable battery

## **Product Usage Instructions**

# **Button Operation:**

- 1. **Power on/off:** Short press the Power button to turn the instrument on/off. Both the main and auxiliary parts are required for this operation. The meter will shut down automatically after 15 minutes of inactivity.
- 2. **HOLD button of the main part:** Under measurement mode, short press HOLD to hold the data on the LCD. Press HOLD again to release the hold mode.
- 3. Laser button of the auxiliary part: Short press the Laser button to power the laser on/off.

# **Instrument Operation:**

- 1. **SELF-TEST:** Bring the main and auxiliary parts together, press the POWER button to power them, align the laser points with the bull's eyes. Wait for SELF-TEST completion to enter the measurement interface.
- 2. **Measurement:** Clamp the sample with both parts, align the laser point with the bull's eyes, and the meter will display the transmission (Rejection) value of the samples.

#### Features:

- Two-parts dual mode facilitates transmission measurement of automobile front windshield glass and building glass.
- Combines UV rejection, IR rejection, and light transmittance meter functions in one device.
- Built-in lithium rechargeable battery for easy use without battery replacement.
- Laser alignment function ensures accurate alignment for precise measurements.

#### FAQ:

#### · Q: What should I do if the SELF-TEST fails?

A: If the SELF-TEST fails, please check if the battery power is low and charge both parts. Ensure proper alignment of laser points with the bull's eyes. Do not power on with clamped testing samples or if there is equipment damage, send it back to the factory for repair.

LS110A/LS110H Split Transmission Meter User Manual V10.03

- Please read this manual carefully before using and reserve it for reference.
- Note: IR peak wavelength of LS110A is 940nm, and IR peak wavelength of LS110H is 1400nm.

#### **Product introduction**

This instrument is able to simultaneously measure and display UVR (Ultra Violet Rejection), IRR (Infrared Rejection), and VLT (Visible Light Transmission) values. The meter consist of two parts: main part(PART I) for measuring and displaying functions and the auxiliary part(PARTII) for light source and laser light for alignment. **Standards for the product** 

- JJF 1225-2009 Calibration Specification for Transmittance Meter of Automobile
- JJG 178-2007 Ultraviolet, Visible, Near-Infrared Spectrophotometers
- GB/T 5137.2-2020 Test methods of safety glazing materials used on road vehicles—Part 2:Optical properties tests
- GB/T 21300-2007 Plastics pipes and fittings Determination of opacity
- GB/T 2680-2021 Glass in building—Determination of light transmittance, solar direct transmittance, total solar energy transmittance, ultraviolet transmittance and related glazing factors
- GB/T 31849-2015 Film mounted motor vehicle glass
- GA/T 744-2013 Automotive solar control window films

# **Parameters**

- 1. Dimension: 130mm \* 70mm \* 84mm (L \* W \* H)
- 2. Weight: 630g
- 3. Resolution: 0.1% for measured value<10% and 1% for other ranges
- 4. Accuracy: better than ±2% (Colorless and transparent material)
- 5. Test sample size: > 40mm \* 40mm
- 6. VL wavelength: 380nm-760nm, CIE function of photopic vision
- 7. UV Peak wavelength: 365nm

- 8. IR Peak wavelength: 940nm/1400nm
- 9. Power supply: built-in lithium rechargeable battery

# **Button Operation**

## 1. Power on/off

Short press the "Power" button to power the instrument on/off, main and auxiliary part are required to perform the operation of power on/off. The meter is shut down automatically for no action within 15 minutes.

- 2. "HOLD" button of the main part Under the measurement mode, short press "HOLD" to hold the data on LCD, the icon "HOLD" will display on the LCD. Short press "HOLD" again to release the hold mode and the icon "HOLD" disappears.
- "Laser" button of the auxiliary part Short press "Laser" button to power the laser on/off.



## Instrument operation

## 1. SELF-TEST

Attracting the main and auxiliary part together, press down "POWER" button to power them respectively and align the upper and lower laser points with the alignment bull's eyes simultaneously. Wait for the completion of "SELF-TEST" and enter the measurement interface (VLT 100%, IRR and UVR 0% displayed on the LCD). The following reasons for failed "SELF-TEST" ("Please refer to the manual" display on the LCD):

- Battery power is low, please charge the main and auxiliary part.
- No alignment the main and auxiliary part with laser point with the bull's eyes.
- Power on the main and auxiliary part with clamped some testing sample.
- Equipment damage, need to send back to the factory repair.

#### 2. Measurement

Clamp the sample with the main part and the auxiliary part and align the laser point with the bull's eyes. The meter will display the transmission (Rejection) value of the samples.





## **Features**

- 1. Two-parts dual mode of the main and auxiliary part facilitates the transmission measurement of the automobile front windshield glass and building glass.
- 2. UV rejection, IR rejection, light transmittance meter. Three function in ONE device.
- 3. The built-in lithium rechargeable battery is easy to use without replacing the battery.
- 4. The laser alignment function guarantees the accurate alignment of the main part with the auxiliary part in the process of measurement and ensures accurate measurement.

## **Battery charging**

This meter has built in lithium chargeable battery and charger. Three methods can be used for charging the meter.

- 1. Plug the USB line into the USB port of computer. Plug in a one-for-two plug to charge the main and auxiliary part simultaneously.
- 2. Use the supporting DC 5V Adapter. Plug in a one-for-two plug to charge the main and auxiliary part simultaneously.
- 3. Use the mobile power of the smart phone for charging.

## Points for attention

1. Since the main and auxiliary part has strong magnetic magnet inside for measurement, avoid pinch hands or

damage the glass samples in the use.

- 2. The laser position and accuracy of each set of meter (main and auxiliary part) has been perfectly matched and calibrated.
- 3. Charge the meter promptly when the battery indicator flashes.
- 4. The meter may not power on due to possible low power. In such case, please charge it for a while before starting up.
- 5. Please use the dedicated supporting charger.
- 6. In order to ensure the accuracy of the measured value, please do not expose the meter to the direct sunlight during the use.
- 7. The meter uses standard 14500 lithium chargeable battery. In case of ineffective operation of button after charging, please open the meter with screwdriver, take out the chargeable battery and re-install it. In case of short use after charging, please replace the chargeable battery.
- 8. This product emits a laser beam from the back side of auxiliary part. DO NOT point the laser at anyone's eyes.



# **Packing List**

No.	Description	Quantity	Unit
1	Split Transmission Meter	1	pcs
2	User Manual	1	pcs
3	Certificate / warranty card	1	pcs
4	Charger	1	pcs

#### Service

- 1. The meter has one-year warranty. If the meter works abnormally, please send the whole meter to the company for maintenance.
- 2. Provide users with spare parts and lifelong maintenance services.
- 3. Provide the users with the meter inspection service for free.
- 4. Free technical support for long term.

Manufacturer: Shenzhen Linshang Technology Co., Ltd.

Website: <a href="www.linshangtech.com">www.linshangtech.com</a> Service hotline: 086-755-86263411 Email: <a href="sales21@linshangtech.com">sales21@linshangtech.com</a>

## **Documents / Resources**



<u>Linshang LS110A,LS110H Split Transmission Meter</u> [pdf] User Manual LS110A LS110H, LS110H Split Transmission Meter, Split Transmission Meter, Transmission Meter, Meter

## References

- Transmission Meter | UV Light Meter | Coating Thickness Gauge Linshang
- User Manual

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