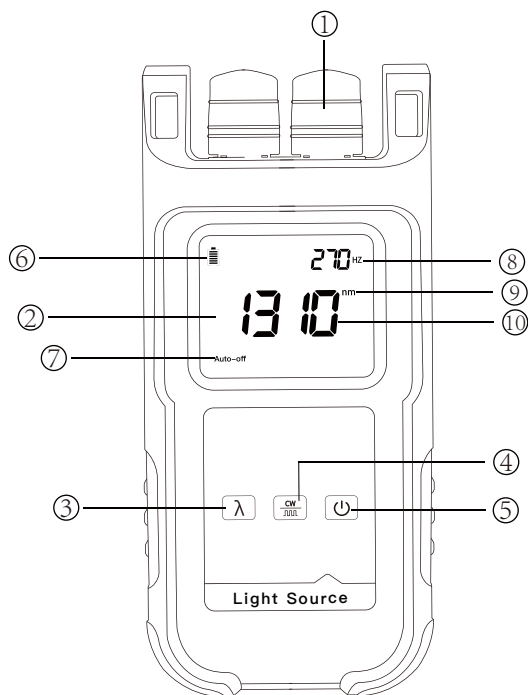


## 1 External and key function description



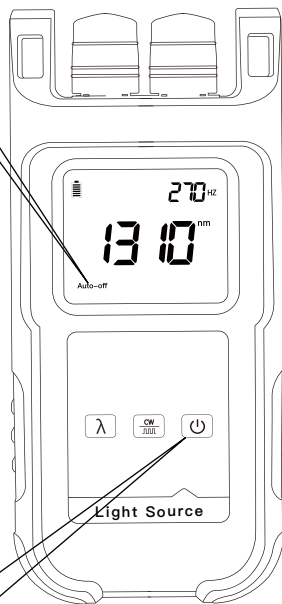
- ① OLS interface: laser light source output port
- ② Display: display test results and other information
- ③ Enter key: switch between 7 different output wavelength tests.
- ④  $\frac{CW}{\square\square\square}$  key: switchable carrier frequency 270Hz/ 1kHz/ 2kHz
- ⑤ On/off key: turn on or off the device
- ⑥ power supply battery
- ⑦ automatic shutdown
- ⑧ frequency
- ⑨ unit
- ⑩ wavelength

## 2 Power-on and power-saving function settings

### Auto-off

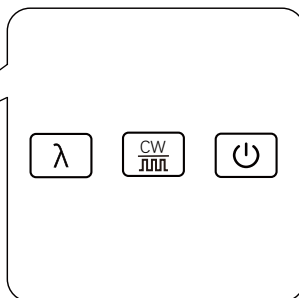
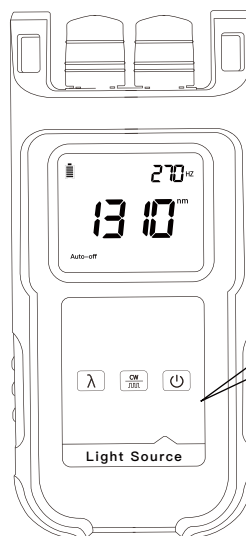
The equipment will turn on after pressing the "⏻" key. Press this button again for more than two seconds to shut down.

This instrument has power saving function, normal there is no operation for about ten minutes after booting, The device will automatically shut down. If you need a screen Shield this function to keep the equipment working all the time Status, just short press "on" when booting Key, "Auto-off" at the bottom left of the meter display. Disappearing means that the power saving function is cancelled.



## 3 Backlight control

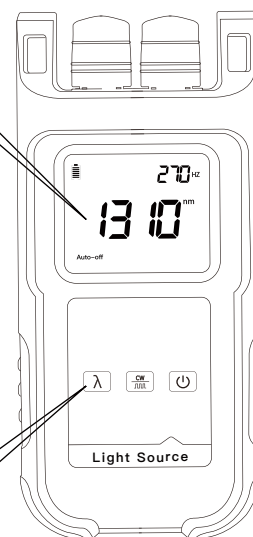
In the power-on state, the backlight will automatically turn off after a period of time. After turning off, press any key to activate the backlight. The backlight is used to illuminate the instrument display at night or in dark places.



## 4 Wavelength selection

1310 nm  
1550 nm

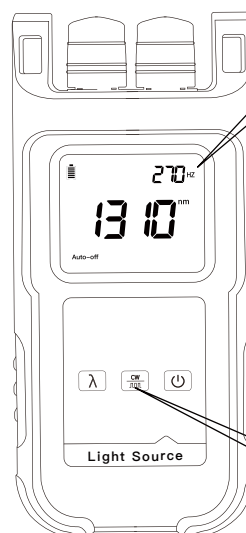
According to the needs of the project, select the corresponding wavelength to match the optical power meter. After the meter is turned on, press the "output wavelength" key, the output wavelength and length will be switched to the corresponding wavelength in turn, and will be displayed on the display. The laser light source of this series can provide 1310nm and 1550nm dual-wavelength laser output according to demand.



## 5 Carrier output

270 Hz 1000 Hz  
2000 Hz

In the actual project, it is necessary to load the audio carrier in the optical signal to identify the optical fiber. The equipment contains three carrier frequencies, which are 270Hz, 1KHz, and 2KHz. After pressing the "modulated carrier" key, the equipment will load different carriers in sequence, and the display will be displayed at the same time. The current carrier frequency will be displayed on the screen.



## 6

### Products introduction

Fiber optic light source is characterized by stable output optical power, wavelength and spectral width with a small range of stable changes. Provide single and multi mode (850nm/1300nm/1310nm/1550nm) four-wavelength laser output. Mainly used for FTTX network and fiber optic testing. When combined with Optical power meter, it is used to measure optical power and end-to-end optical loss.

## 7

### Products features

- 2.5mm universal interface
- Output power  $\geq$  -5dB
- Silica gel shell protection design, 2m anti-fall
- Automatic shutdown in 10 minutes

## 8

### Products specification

Wavelength (nm)	850+1300+1310+1550nm (SM&MM)
Output Power	$\geq$ -5dB
Optical connector	2.5mmuniversal (1.25mm LCOptional)
Power supply	Alkaline batteries(3 AA 1.5V batteries)
Stable output	$\pm$ 0.05dB/15mins; $\pm$ 0.1dB/ 8小时
Modulation frequency	CW, 270Hz, 1KHz, 2KHz
volume and weight	183*83*42mm/287g

### Use environment

- Operating environment altitude:  
areas below 2000m above sea level

## 9

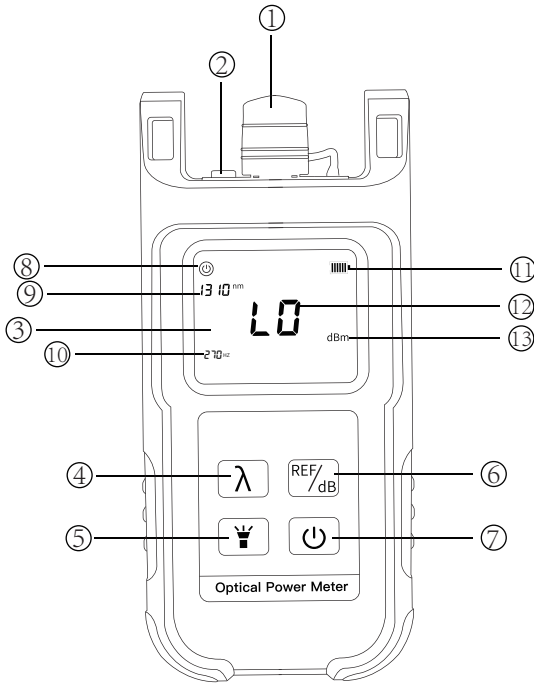
### Tips



Please read all instructions and warnings before using this product. Irregular use will cause It will damage the product or personal safety.

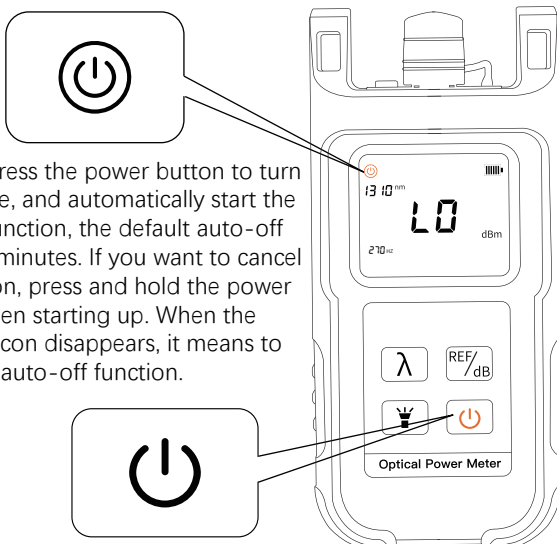
- 1) Do not store this product in high temperature, strong light and strong magnetic field environment, do not put it pace in other harsh environments such as fire sources.
- 2) Improper use of the product may easily cause the product itself or may endanger personal property Safety.
- 3) If the consumer violates the product manual and improper use, the personal and financial Property damages will bear all consequences, and the company will not bear any legal responsibility.
- 4) Non-professionals are strictly forbidden to decompose this product.
- 5) Avoid using electrical appliances or loads that exceed the output current of this product (the circuit will protect Protection, no output).
- 6) Avoid strong physical effects, including knocking, throwing, trampling, squeezing, etc.

## 1 External and key function description



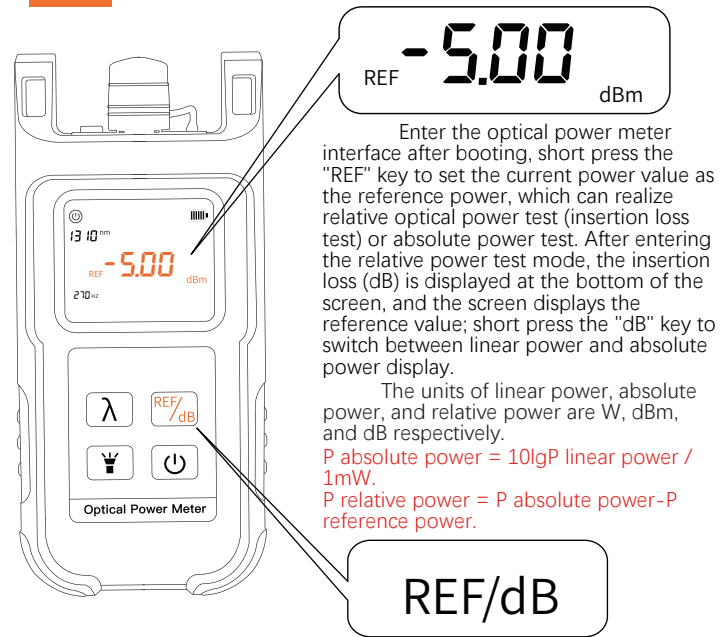
- ① OPM interface: insert the fiber to be tested, test the optical power.
- ② LED lighting: flashlight lighting
- ③ Display: display test results and other information
- ④ λ key: can switch 7 test wavelengths
- ⑤ LED button: turn on/off the flashlight, press any button to turn on the backlight
- ⑥ REF/dB key: Short press the dB to switch unit, click once nW/dBm/dB to enter the upper clear data, press and hold until REF is displayed on the screen, and set the current optical power as reference value, enter the relative optical power test mode, the screen will display the setted reference.
- ⑦ On/off key: turn the device on or off
- ⑧ Auto Off
- ⑨ wavelength
- ⑩ Frequency
- ⑪ Battery level
- ⑫ Numerical value
- ⑬ Unit

## 2 Power on/Auto power off



Short press the power button to turn on machine, and automatically start the auto-off function, the default auto-off time is 10 minutes. If you want to cancel this function, press and hold the power button .when starting up. When the power on icon disappears, it means to cancel the auto-off function.

## 3 Optical power reference value setting



Enter the optical power meter interface after booting, short press the "REF" key to set the current power value as the reference power, which can realize relative optical power test (insertion loss test) or absolute power test. After entering the relative power test mode, the insertion loss (dB) is displayed at the bottom of the screen, and the screen displays the reference value; short press the "dB" key to switch between linear power and absolute power display.

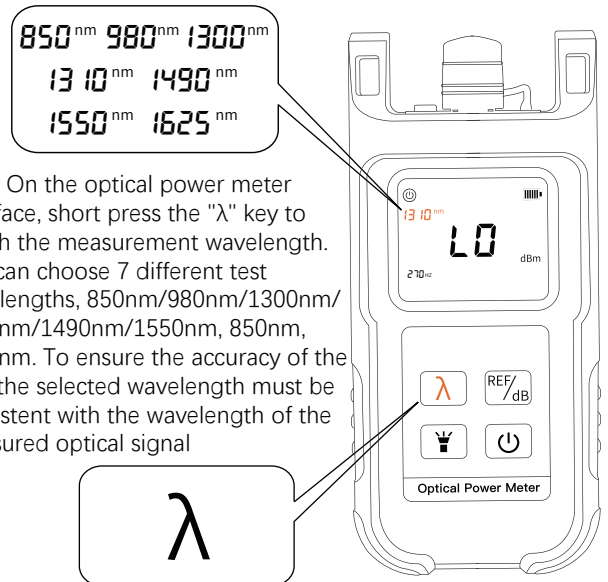
The units of linear power, absolute power, and relative power are W, dBm, and dB respectively.

$P_{\text{absolute power}} = 10 \lg P_{\text{linear power}} / 1 \text{mW}$ .

$P_{\text{relative power}} = P_{\text{absolute power}} - P_{\text{reference power}}$ .

REF/dB

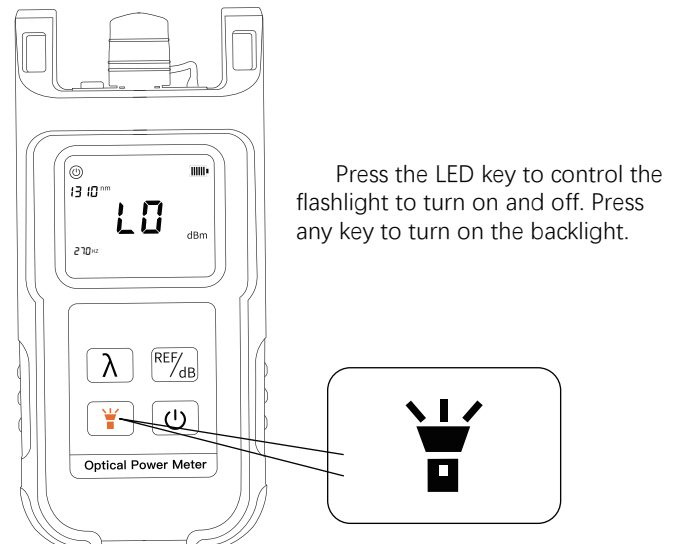
## 4 Optical power wavelength switching



On the optical power meter interface, short press the "λ" key to switch the measurement wavelength. You can choose 7 different test wavelengths, 850nm/980nm/1300nm/1310nm/1490nm/1550nm, 850nm, 1625nm. To ensure the accuracy of the test, the selected wavelength must be consistent with the wavelength of the measured optical signal

λ

## 5 LED lighting



Press the LED key to control the flashlight to turn on and off. Press any key to turn on the backlight.

## 6

### Calibration function description

Press the LED+REF/dB keys at the same time to enter the calibration mode. Cal is displayed at the bottom of the screen. The following operations are only valid in the calibration mode.  $\lambda$  key for downward adjustment, REF/dB key for upward adjustment. After adjustment, press LED to save.

Key	Function
REF/dB	Increase by 0.1dB
$\lambda$	Decrease by 0.1dB
	Save
	Shut down

## 7

### Common fault solutions

Fault prompt	Possible Causes	Solutions
LCD display is weak	Battery low	Replace battery
Unable to boot display	Battery low or other reasons	Reboot or replace battery
Optical power value is abnormal	Connector failure/dirty	Reconnect the connector or clean the sensor

## 8

### Product introduction

This optical power meter is widely used in the construction, maintenance, inspection and acceptance of optical fiber communication network projects. The combination of fiber optic power meter & light source, check continuity, and help evaluate the transmission quality of optical fiber links. Smart appearance, sustainable backlit display, and friendly operation interface make you feel good about it. Provides 7 wavelengths detection, with automatic wavelength memory function. The ultra-wide optical power test range, precise test accuracy and new user self-calibration function will make your work even better. Universal interface design, support FC/SC/ST and other interfaces, without complicated conversion. In addition, the LED lighting function has been added to the product basis to allow it to be carried out in a dark environment, further improving work efficiency.

## 9

### Product features

- 2.5mm universal interface+SC
- Wavelength range 850nm~1625nm
- Manual calibration
- Silica gel shell protection design, 2m anti-fall
- $\pm 0.2$  dB accuracy
- Measuring range: -70~+10dBm/-50~+26dBm
- Waterproof keys suitable for various outdoor environments
- Equipped with LED lights to facilitate work in dark environments

## 10

### Product parameter

Wavelength (nm)	850/980/1300/1310/1490/1550/1625nm
Measuring range (dBm)	-70~+10dBm/-50~+26dBm
Connectors	2.5mm universal interface+SC
Power Supply	Alkaline battery(3 AA 1.5V battery)
Resolution (dB)	0.01
Working Temperature	-10~+60(°C)
Storage Temperature	-25~+70(°C)
Dimensions/Weight	86x46x181mm / 364g

### Use environment

- Operating environment altitude:  
Area altitude below 2000m

## 11

### Tips

- ⚠ Please read all instructions and warnings before using this product. Irregular use will cause damage to the product or personal safety.

- 1) Do not store this product in high temperature, strong light and strong magnetic fields, and do not place it in other harsh environments such as fire sources.
- 2) Improper use of the product may easily cause the product damage or may endanger personal and property safety.
- 3) If consumers violate the product manual and improperly use it, the personal and property damage caused by it will be borne by yourself, our company will not bear any legal responsibility.
- 4) Non-professionals are strictly prohibited from disassembling this product.
- 5) Avoid using electrical appliances or loads that exceed the output current of this product (the circuit will be protected and there will be no output).
- 6) Avoid strong physical effects, including knocking, throwing, trampling, squeezing, etc.

### Standard configuration

- Packing carton, optical power meter , certificate of conformity, instruction manual.