Precision Rated Optics

Work with a PRO!

LS-200 Series

Light Source

Operation Guide

V.3.2.20

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1. Introduction

The 200 Series Dual Light Source offers excellent stability and portability for accurate fiber optic testing. Single output port provides stable laser power at dual wavelengths. The compact unit operates in either continuous wave (CW) mode or modulated mode.

Designed with the technician in mind, output power is instantly adjustable from the keypad. A convenient "Low Battery" indicator reminds the user to recharge the battery, while the lightweight, compact, ruggedized case of the 200 Series delivers rock-solid reliability under all working conditions.

2. Warranty

Three Years Limited Warranty
Products are warranted against the defective components and workmanship for a period of three years from the date of delivery to the original customer. Any product found to be defective within the warranty period would be returned to authorized service center for repair, replacement and calibration.

Exclusions
The warranty on your equipment shall not apply to defects resulting from the following:

- Unauthorized repair or modification including battery replacement
- Misuse
- Negligence
- Accident

Returning Product
To return product, you may contact PRO to obtain additional information if necessary. To serve you better, please specify the reasons for the return. All delivery and mails should be sent to the following address:

121 Park Avenue, Quakertown, PA

3. Safety Information

Warning

- Never look directly into optical outputs or a fiber while the equipment is on. Invisible and visible laser beam may damage your eyes.
- Do not short-circuit the terminal of AC adapter I charger and the batteries. Excessive electrical current may cause personal injury due to fumes, electric shock or equipment damage.
- Connect DC power cord with the equipment and wall socket properly. While inserting the DC plug, make sure there is no dust or dirt on the terminals and both plugs are fully seated. Incomplete engagement may cause fuming, electric shock or equipment damage and may result in personal injury.
- Do not operate the equipment near hot objects, in hot environments, in dusty/ humid atmosphere or when condensation is present on the equipment. This may result in electric shock, product malfunction or poor performance.

4. Preparing for Operation

4.1 Unpacking the Instrument

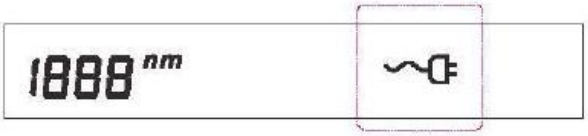
Packing Material
We suggest that you keep the original packing material. Using the original packing material is your guarantee of protecting the instrument during transit.

Standard Accessories:
Light Source, FC/PC, SC/PC, ST/PC Interchangeable Connector, User Manual, Worldwide-Compatible AC/DC Power Adaptor, Rechargeable Ni-MH Batteries (x2), Test Report, Soft Carrying Case

Checking for Damage in Transit
After unpacking the instrument, check to see whether it was damaged in transit. This is particularly likely if the outer casing is clearly damaged. If there is damage, do not attempt to operate the instrument or to repair it without authorization. Doing so can cause further damage and you may lose your warranty qualification.

4.2 Power Supply

There are battery indicator and power plug on the screen to show the power supply. When you use the DC 6v charger, there is no battery indicator on the screen. When you do not connect the DC 6v charger, the adapter indicator will disappear on the screen.



When you use the battery, the battery indicator on the screen will show the remaining charge. An empty battery indicator means the power is almost out. When the battery charge is extremely low to supply the necessary power, the instrument will automatically switch off after several beeps of the buzzer. Please change the battery or recharge it

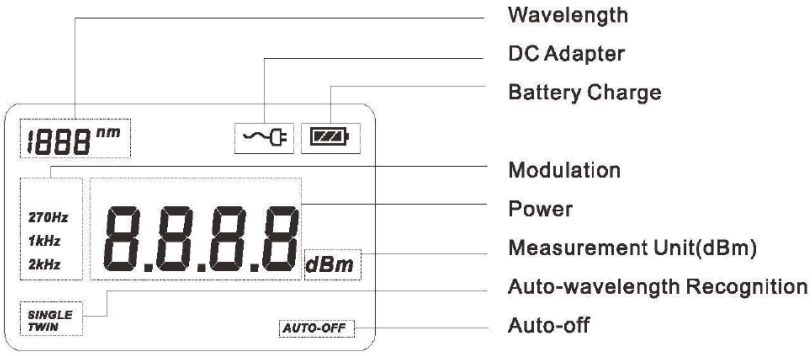
5. Operation

5.1 Display and Controls

5.1.1 Front (Panel Board)

Key	Function
λ	Wavelength Shifting Key: Switches working wavelength between 850nm, 1300nm, 1310nm, 1490nm and 1550nm.
CW/Hz	Modulated Wavelength Shifting Key: Switches modulated wavelength and continuous wavelength.
▲ ▼	Output Power Increase and Decrease: Increase or decrease output power by 0.1 dB and the adjustable range is ±3dB wavelength.
TWIN	SINGLE: Auto-wavelength recognition is off. TWIN: Auto-wavelength recognition is on .
☼	Switches backlighting on/off.
>2s PERM ON OFF	Switches Instrument on/off. Long keypress while powering on to activate the instrument without Auto-off function.

5.1.3 LCD



5.2 Turning the Instrument on and off

1) Press the "ON/OFF" key briefly.
2) The instrument powers on.(See the figure)
3) Press the "ON/OFF" key briefly again.
4) The instrument powers off.

Note: **Auto-off function**

1) The instrument powers off automatically if no key press in 10 minutes.
2) Press the "ON/OFF" key for about 2 seconds to power on the instrument with "Auto-off" function deactivated.

5.3 Switching the Wavelength

Press the [λ] Key to switch the wavelength between 850nm, 1300nm, 1310nm, 1490nm and 1550nm.

5.4 Frequency Output

The instrument defaults to CW when it switches on. When it is set to CW, there is no frequency on display.

Press the [CW/Hz] Key to select the output among 270Hz, 1 kHz and 2 kHz.

5.5 Auto-Wavelength Recognition

Press the [TWIN] Key to turn on and off the auto-wavelength recognition function.

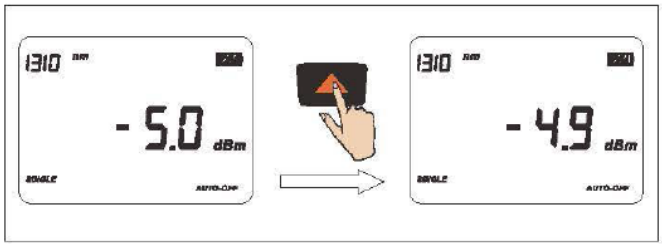
5.6 Switching Backlighting of the LCD on and off

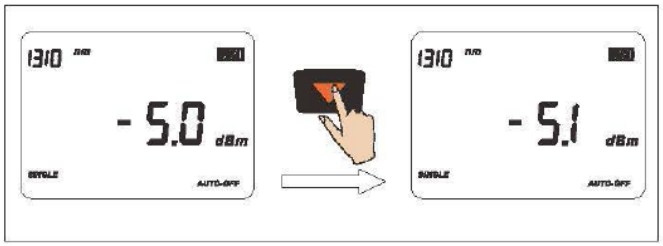
Press the backlighting Key to switch the backlighting of the LCD on and off.

5. 7 Setting the Output Power

Press the [▲] key to increase the output power. The measurement range is from -2dBm to -8dBm. Each time you press it, the value increases by 0.1dBm.

Press the [▼] key to decrease the output power. The measurement range is from -2dBm to -8dBm. Each time you press it, the value decreases by 0.1dBm.





5.8 Connecting with Optical Power Meter

It can work with optical power meter to measure the loss of optical fiber accurately.

6. Specifications

Model	LS-202D	LS-201T	LS-202T	LS-201Q
Output Wavelength (nm)	1310 / 1550	1310 / 1490 / 1550	1310 / 1550 / 1625	850 / 1300 / 1310 / 1550
Emitter Type	LD			
Connector	FC/PC, SC/PC, ST/PC (Interchangeable)			
Output Stability	Short-Term (15 min.): < ±0.05dB @ 1310,1550nm Long Term (>8 Hours): < ±0.1dB @ 1310,1550nm	Short-Term (15 min.): < ±0.05dB @ 1310,1550nm; ±0.1dB @ 1625nm Long-Term (8 Hours): < ±0.1dB @ 1310,1550nm; ±0.2dB @ 1625nm		Short-Term (15 min) <±0.05dB @ 1310nm/1550nm / ±0.1dB @ 850nm/1300nm Long-Term (>8 Hours) <±0.1dB @ 1310nm/1550nm / ±0.2dB @ 850nm/1300nm
Central Wavelengths	± 20nm			
Spectral Width	5 nm			
Output Frequency (Hz)	270 / 1,000 / 2000			
Output Power	-5 dBm			
Power Supply	2500mAh Ni-MH AA (x2), AC/DC Power Supply			
Operating Temperature	14º F ~ 122º F (-10º C ~ 50º C)			
Storage Temperature	-4º F ~ 158º F (-20º C ~ 70º C)			
Weight & Dimensions (HxWxD)	6.3” x 3” x 1.8” / 9.5 oz (160 x 76 x 45 mm / 270 g)			
Warranty	Standard 1-Year Manufacturer Warranty (Extended Warranty Available)			

7. Maintenance

- Please disconnect the DC adapter/charger and cover the protective dust cap once you finish using.
- It is a good idea to clean the connector and the instrument when they get dirty through use. Optical cleaning pads and anhydrous alcohol is recommended. And please be careful not to get the detergent inside the instrument.
- To ensure the measurement accuracy, please send the instrument to Service Center for calibration once a year.

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