



VISUAL FAULT LOCATOR · RED LIGHT SOURCE

B5 Red Light Pen

A precision 650nm semiconductor laser source for fiber fault detection — built for engineering construction, network maintenance, optical device production and research.

650nm

WAVELENGTH

2.5mm

UNIVERSAL
ADAPTER

18650

LI-ION · MULTI-
POWER

≤40 mA

FROM QUIESCENT
≤15MA

FOREWORD

About the B5 Source

The B5 red light source uses a **650nm semiconductor laser** as the light-emitting device, driven by a constant current source. It emits stable red light and couples into both multi-mode and single-mode fiber through the optical interface to realize fiber fault detection. It is an indispensable tool in fiber engineering construction, fiber network maintenance, and optical device production and research.

At a glance

- Multi-mode & single-mode compatible
- Constant-current driven, stable output
- 2.5mm universal optical adapter
- Pocket-size field & lab instrument

Key Features

- **New ergonomic body** with rotary auto-lifting laser head — rotate to raise & switch on.
- **Multiple power supply methods:** alkaline batteries, power bank, computer, adapter, and lithium battery.
- **Built-in lighting function** — convenient for dark environments such as the field, computer room, and night-time line construction.

Power options

- Alkaline
- Power bank
- Computer
- Adapter
- Lithium

Specifications by Model

Model	B5-05	B5-10	B5-15	B5-20	B5-30
Output wavelength	650 nm				
Interface type	2.5mm universal adapter				
Quiescent current	≤15μA	≤15μA	≤15μA	≤15μA	≤15μA
Working current	≤40mA	≤140mA	≤150mA	≤160mA	≤170mA
Battery life	≥40 H	≥12 H	≥12 H	≥11 H	≥11 H
Charging voltage	5V	5V	5V	5V	5V
Recharging current	≤600mA	≤600mA	≤600mA	≤600mA	≤600mA
Charging time	≤5 H	≤5 H	≤5 H	≤5 H	≤5 H
Type of battery	18650 lithium battery				
Battery capacity	1800 mAh				
Product size (mm)	130 × 27				
Operating temperature	-20 ~ +60 °C (No condensation)				
Storage temperature	-40 ~ +85 °C				
Package size (mm)	165 × 75 × 34				
Net weight	≈ 96 g				
Gross weight	≈ 100 g				

OPERATION

Instructions

1

Power on / off

Turn the rotary button **clockwise** to raise the laser head and switch on; turn **counter-clockwise** to hide the head and switch off.

2

LED lighting – short press

Short-press the illumination button to toggle the LED lighting on → off.

3

Flashing mode – long press 2s

With the 650nm red light on, long-press 2 s to toggle the flashing function on → off. The working state is saved automatically at power-off.

4

Reset – long press 6s

Long-press the illumination button for 6 s to reset; the machine restarts automatically.

Charging

When battery power is too low, the last power indicator bar flashes continuously and then powers off — please charge before use.

Use **standard USB charging**. When only one battery indicator is on, charge the unit. The indicator **flashes while charging**, and all **4 indicators stay on** once fully charged.

Standard Accessories

● Host unit

● Manual

● Warranty card

● Certificate

● Charging cable

● Ceramic tube

TROUBLESHOOTING

Common Fault Solutions

Fault prompt	Possible causes	Solution
Does not boot	Insufficient power	Recharge the unit
Weak red light	Insufficient power supply, or other	Charge, or clean the laser head
Emits normally but won't focus	Ceramic tube cracking	Replace the ceramic tube



LASER SAFETY — PROTECT YOUR EYES

Lasers are harmful. When the laser is working, never look directly into the red light.

Maintenance & Precautions

- △ The higher the temperature, the shorter the laser life — avoid high-temperature environments during use.
- △ After a period of use, clean the interface with a dedicated optical fiber cleaning swab.
- △ After use, cover with the dust cap to prevent dust ingress.
- △ If unused for a long time, remove the battery to avoid accidents caused by battery leakage.

WARRANTY

Maintenance Regulations

- 1 Within **twelve natural months** of receiving the goods, our company guarantees the quality and workmanship of its products. The warranty period runs twelve months from the date of receipt. Should a quality problem be found during this period, our company will provide corresponding treatment or replacement; under no circumstances will our responsibility exceed the purchase value of the product.
- 2 If a problem arises during use that cannot be solved using the common fault prompts, the user must **not open the case** without authorization — please contact our company.
- 3 For product defects caused by faults, our company is responsible for **free maintenance or replacement** of products.

Note: This guarantee applies only to normal use of the instrument with no damage. For failures caused by product quality or material defects under normal use, our company is responsible for free repair or replacement. Our company reserves the right

to refuse warranty for accidents, improper use, and unauthorized start-up maintenance.