

Laser Power Meter

840017

Instruction Manual

SPER
SCIENTIFIC LTD.

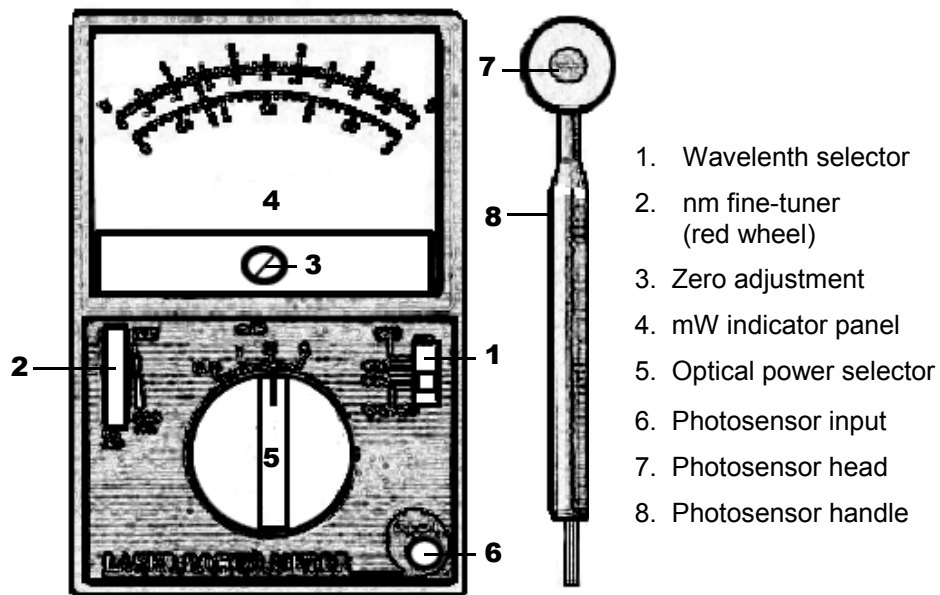
CONTENTS

I. Introduction	2
II. Meter Description.....	2
III. Operating Instructions	
Measuring Procedures.....	3
Precautions	4
IV. Specifications.....	4
V. Warranty	4

I. INTRODUCTION

Your new Laser Power Meter provides a fast and accurate way to measure laser beam power from 635nm ~ 830nm. Features a built-in stand for stability during use.

II. METER DESCRIPTION



III. OPERATING INSTRUCTIONS

MEASUREMENT PROCEDURES

Insert the probe's plug into the **Photosensor Input** and uncover the **Photosensor Head**.

Zero Adjustment: Slide the **Wavelength Selector** to CAL ADJ. Turn the **Optical Power Selector** to 1 mW. If the unit does not indicate a zero reading, use a small screwdriver to turn the **Zero Adjustment** until the needle rests on "0".

Wavelength Selector: There are 4 settings: ,635nm and 650nm for visible beams, 830nm for ultra red beams, and CAL ADJ. Select the appropriate setting for your application.

If the beam wavelength is other than 635nm, 650nm or ;830nm, slide the **Wavelength Selector** to CAL ADJ position and adjust the red **nm Fine-Tuner** wheel to obtain your reading. The meter is calibrated to 635nm, 650nm and 830nm. Readings obtained using the CAL ADJ setting are for reference only - accuracy is not guaranteed.

Optical power selector: There are 4 settings, 0.3mW, 1mW, 3mW, and 5mW. Start with 5mW and turn the selector counter clockwise to locate the setting with the highest accuracy for your application.

The **mW indicator panel** displays the reading. There are three scales on the panel. The 0.3mW setting uses the 3mW scale, but the actual measurement is 1/10th of reading (divide results by 10).

Direct the laser beam in a straight line onto the center of the **Photosensor Head**. Place the laser light source the same distance as it would be during use. For example, if the laser beam is normally directed onto an object that is 3 inches away, place the **Photosensor Head** 3 inches from the laser light source. When measuring ultrared laser light, move the laser slightly while focusing on the **Photosensor Head** until you receive the highest readout.

Note: When measuring a weak beam in a darkened environment, an ambient light source (such as a desk lamp) can cause measurement errors.

PRECAUTIONS: When not in use, cover the **Photosensor Head** to keep the lens clean. Measurement errors may occur if the lens becomes dirty. As needed, use an alcohol swab to clean the surface. Protect your instrument from water, shock, dust, heat and sunlight.

Laser light can be harmful to the eyes and/or skin, avoid exposure to the beam and do not look directly into the light. Do not aim the light at the eyes of other humans or animals. Do not aim the laser light into a mirror or reflective surface where the light could be reflected into your eyes.

IV . SPECIFICATIONS

Wavelength beam range	635nm ~ 830nm
Beam power range	0.1mW ~ 5mW
Beam power selector	0.3mW, 1mW, 3mW, 5mW
Power Source	No batteries required as the meter obtains power from the laser itself
Accuracy	1, 5mW+5% 0.3, 3mW+10% for the 3 specific wavelengths
Photosensor	Silicone photo diode (sensor diameter 9mm)
Photosensor dimension	1"(D) x 4 3/4"(L) 23.5mm(D) x 120.5mm(L)
Approximate probe length	42" (1 meter)
Device dimension	5 3/4"(L) x 3 3/4"(W) x 1 1/2"(H) 14mm(L) x 98mm(W) x 35mm(H)

5 YEAR METER WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of five (5) years from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover damage resulting from accident, misuse, or abuse of the product. In order to obtain warranty service, ship the unit postage prepaid to:

SPER SCIENTIFIC LTD.

7720 East Redfield, Suite 7, Scottsdale, Arizona 85260
(480) 948-4448, info@sperscientific.com, www.sperscientific.com

Include a brief description of the problem along with your contact information. Be sure to return your warranty card or register online within 10 days.