eGismos EYC-60 Laser Power Meter User Manual

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Thank you for choosing our laser beam power meter, in order to use the device correctly and effectively please read the instruction carefully prior to use of the device.

I . Introduction

The laser beam power meter could provide a faster way to measure the laser beam power from 635nm ~ 830nm, applicable range from DVD player, CD player to laser indicator and so on.

II . Specification

Beam wavelength measure range:
635nm ~ 830nm.
Beam power measure range:
0.1mW ~ 5mW.
Adjust the beam power position:
0.3mW, 1mW, 3mW, 5mW,
Accuracy:1,5mW+5% 0.3,3mW+10% for three specific wavelengths.
Photosensor:
Silicone photo diode (sensor diam 9mm).
Photosensor head:
Dimension:23.5(D)x120.5(L)mm.
Wire length:1 meter.
Device dimension:
141(L)x98(W)x35(H)mm.

III. Component & Features(Fig 1.)

1 Slideswitch selecting wavelength
2 Knob, selecting wavelength
3 Zero adjustment
4 Scale plate
5 Switch,selecting optical power level
6 Terminal,connecting photosensor
7 Photosensor
8 Photosensor head
9 Extension cord

FIG-1

1.Wave length slide switch
There are four position in the slide switch, for the visible beam 635nm&650nm, and for ultra red beam 830nm, also a position CAL for active the wave length adjusting knob, move to the proper position on the slide switch, to measure the different values 635nm, 650nm, 830nm.
Ex. For measuring laser beam power of 650nm, adjust the wavelength slide switch (as Fig 2) to position 650nm.

2.Wave length adjust knob
a. Select the wave length slide switch to CAL position(as Fig 3)

FIG-2

FIG-3

b. With position 830nm, could measure wave length 830nm, with position 635nm, could measure wavelength 635nm, with laser beam power between 635nm~680nm, adjust the knob in-between, a reference readout will be shown(as Fig 4).

FIG-4

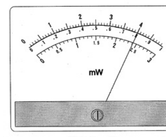

FIG-5

3. Reset adjusted knob
Reset the needle on indicator back to zero by the reset-adjusted knob(as Fig 1)

4. Indicator panel
There are three readout on the panel in full position, there are 3, for value 0.3mW divide by 5, (as Fig 5).
5. Beam power select knob
There are 4 position in beam power select knob, they are:0.3mW, 1mW, 3mW, 5mW (as Fig 6).

IV .Some precaution

1. Avoid direct contact of photosensor, since the contaminated surface could cause readout error, clean the surface of the device by fine paper socked with alcohol.
2. Note avoid human eye contact by laser beam when measure the high power beam, since the invisible ultrared beam will damage the eyesight, so special attention and special safe procedure should be taken.
3. Into a dark room when a weak beam power is measured, since the light surrounding will nfluence the beam, and cause readout error.
4. Input laser beam should locate on the center of the light sensor, the beam should diffuse average on the effect range. Locate the laser beam and beam sensor in a line, this could avoid beam reflect (as Fig 7)
5. Do not hit or bent the laser beam sensor by foreign object, this will damage the beam sensor.

FIG-6

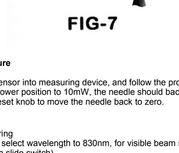

FIG-7

V .Measuring procedure

1. Prior to measure
Connect the beam sensor into measuring device, and follow the procedures below:
a. Adjust the beam power position to 10mW, the needle should back to zero.
b. If not, adjust the reset knob to move the needle back to zero.

2. Beam power measuring
a. For ultrared beam select wavelength to 830nm, for visible beam select wavelength to 635nm(see wave length slide switch).
b. Select power position to 5mW first, after that choosing a suitable lower power position for accurate readout.
c. For measure the ultrared beam, the important thing is to make sure the angle for measuring, move the beam sensor to ultrared beam, there will be a position shown the biggest readout, that is the point the beam shaft actually located, take some measuring at this point.
d. Away the point of measuring, the beam shaft will move up, down, left or right. Generally speaking, the beam should locate on the effect range of the sensor, that is the position to measure the biggest beam intensity.

ADJUSTMEN		
Data	Experiment	Meterman