UV LIGHT METER

Model : SP-82UV

Your purchase of this UV LIGHT METER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.

OPERATION MANUAL

TABLE OF CONTENTS

1. FEATURES

* UV light measurement, calibration is executed under the UVA light & and compare with the standard UVA light meter.
* UV sensor structure The exclusive UV photo sensor with the cosine correction filter.
* UV sensor spectrum Band pass 250 nm to 390 nm.
* Tiny bone shape with light weight and small size case design are suitable for handling with one hand.
* Wristlet design provides extra protection to the instrument especially for user one hand operation.
* Built- in microprocessor circuit assures excellent performance and accuracy.
* Concise and compact buttons arrangement, easy operation.
* Memorize the maximum and minimum value with recall.
* Hold function to freeze the current reading value.

2. SPECIFICATIONS

2-1 General Specifications

Display	8 mm LCD display
Measurement	UV Light
Operating Humidity	Max. 80% RH.
Operating Temperature	0 to 50 ℃ (32 to 122 ℉)
Over Input Display	Indication of "- - - - "
Power Supply	CR 2032 DC 3V battery
Power Consumption	Approx. DC 5 mA
Weight	160g (battery included)
Dimension	HWD 120 x 45 x 20 mm (4.7 x 1.8 x 1.2 inch).
Standard Accessory	Instruction Manual

2-2 Electrical Specification (23 ± 5℃)

UV Light ** auto range * UVA light measurement*

Range	*Resolution*	*Accuracy*
0 to 1999 uW/cm^2	1 uW/cm^2	± (4 % FS + 2 dgt)
2 to 20.00 mW/cm^2	0.01 mW/cm^2	FS : full scale

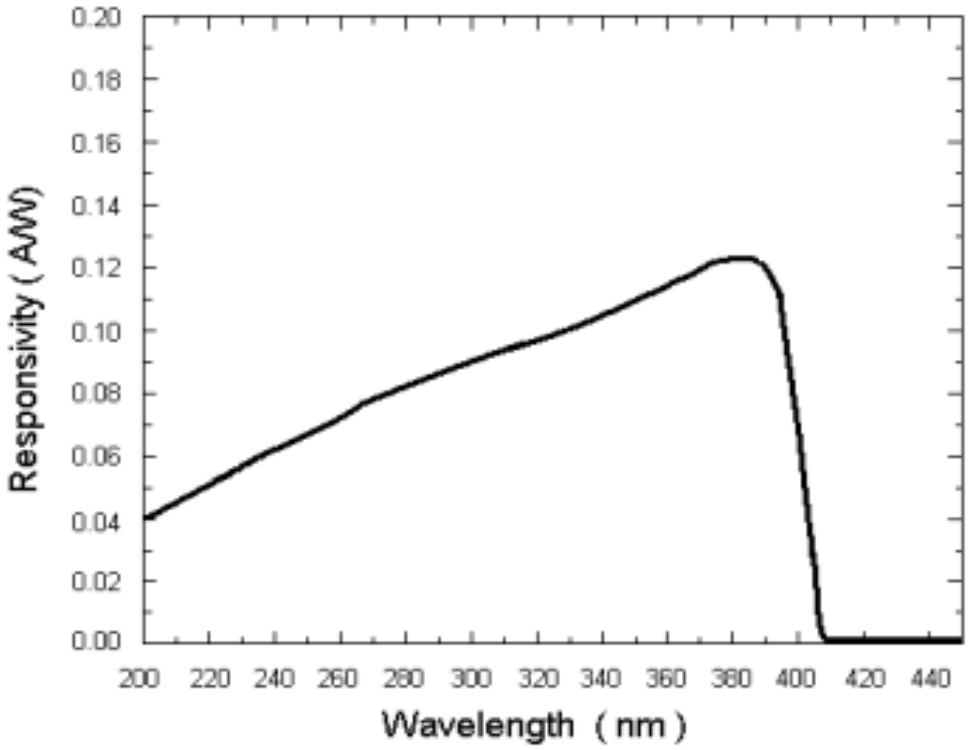
Remark

** Calibration is executed under the UVA light & and compare with the standard UVA light meter.*

** UV Sensor structure :*
The exclusive UV photo sensor with the cosine correction filter.

** UV sensor spectrum Band pass 250 nm to 390 nm.*

UV Light sensor spectrum



3. FRONT PANEL DESCRIPTION

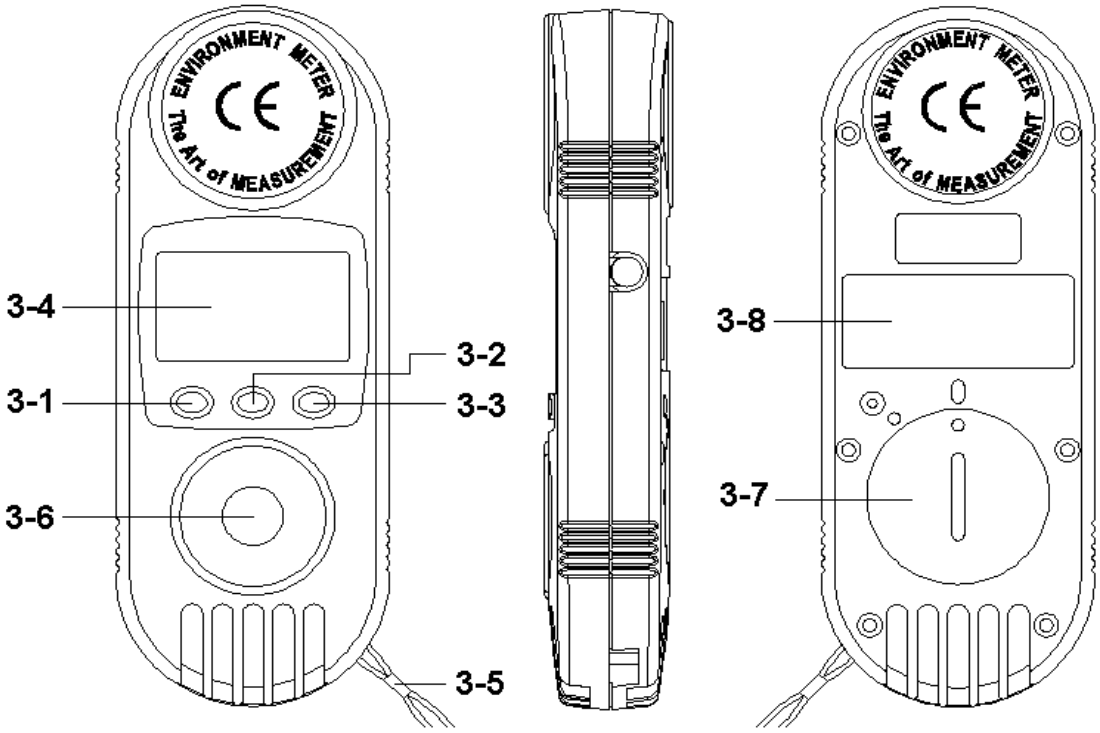


Fig. 1

3-1 Hold button

3-2 ⏻ Button (Power button)

3-3 REC button

3-4 LCD display

3-5 Wristlet

3-6 UV Light Sensor

3-7 Battery Compartment / Cover

3-8 Button operation label

4. MEASURING PROCEDURE

4-1 Power on/off

Button = Power Button

1) *Power on :*
Press " Power Button " once.

2) *Power off :*
During power on, press " Power Button " > 3 seconds. will power off.

4-2 LCD backlight on/off

During power on, press " Power Button " once, then the LCD backlight will be on 5 seconds then off automatically,

4-3 UV light measurement

2) Position the " UV Light Sensor " (3-6, Fig. 1) directly under the UV light source, the " Display " (3-4, Fig. 1) will show the UV light value with auto range measurement. If the measuring value over 20 mW/cm^2, the " Display " will show " - - - - ".

4-4 Reverse the Display direction

For the convenient measurement, if intend to reverse the Display direction, just press the " Hold button " (3-1, Fig. 1) once, then press the " Power button " (3-2 , Fig. 1) once, the Display direction will be reversed automatically.

* *After reserve the Display direction already, press the " Hold button " (3-1, Fig. 1) once, then press the " Power button " (3-2 , Fig. 1) once again, the Display direction will back to the original normal direction again.*
* *When the reverse the Display, the direction of Display unit can not be changed.*

4-5 Hold Function

Whenever press the " Hold Button " will freeze the current reading value with a "HOLD" symbol on the display.
To release the Hold function, just press the " Hold button " once again, the " HOLD " indicator will be disappeared.

4-6 REC (Record) function

1) The REC (Record) function can record and display the maximum and minimum reading values. Start the Record function by pressing the " REC Button " once. There will be a " REC " symbol on the display.
2) With the REC symbol on the display :
   (a) Press the " REC button " once and the " Max " symbol along with the maximum value will appear on the display.
   (b) Press the " REC button " again, the " MIN " symbol along with the minimum value will appear on the display.
   (c) To exit the memory record function, press the " REC button " continuously for at least 2 seconds. The display will revert to the current reading.
   (d) Clear the recorded MAX or MIN value by pressing the " Hold button " once. Previous recorded MAX/MIN value will be given up and then revert to the REC. function keep on recording.

4-7 Auto power off disable

In order to prolong the battery life, the instrument has "Auto Power Off " function. The meter will switch off automatically if no buttons are pressed for around 10 minutes.
However if intend disable the " Auto power off " function, just execute the " REC " function (above chapter 4-6), then the Auto power off function will be canceled.

5. BATTERY REPLACEMENT

1) When the LCD display shows "  " symbol, it is necessary to replace the battery. However measurement may still be made for several hours after the low battery indicator appears.
2) Open the " Battery Compartment / Cover " (3-7, Fig. 1) and remove the battery.
3) Install the battery (CR2032) and then reinstate the cover.

6. APPLICATIONS for UV LIGHT METER

Industrial

* Monitoring blue light radiation hazards in welding.
* UV sterilization
* Graphic arts.
* Photochemical matching.
* UV EPROM erasure.
* Photoresist exposure.
* Curing of inks, adhesives and coatings.

Laboratory

* Weathering " degradation studies."
* UV sterilization
* Virology.
* Microbial genetics.
* DNA research. * Biologic hoods.
* General laboratory use.