

UV LIGHT METER

Model : UV-340A



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

Storage for the " UV sensor "

UV sensor is with extremely precise structure. Once don't use it , be sure to store it in the dry environment. For example, put the whole sensor including Desiccant (Drier) into to the Plastic bag and seal the bag as tightly as possible (refer the following figure).



Take the sensor out of the bag only when use it.

Comply to above method will extend the life of UV sensor. Otherwise, the gain of the UV SENSOR may be decreased and shorten the calibration period. It is also necessary to replace the Desiccant (Drier) periodically.

TABLE OF CONTENTS

| | |
|--------------------------------------|---|
| 1. FEATURES..... | 1 |
| 2. APPLICATIONS..... | 1 |
| 3. SPECIFICATIONS..... | 2 |
| 4. FRONT PANEL DESCRIPTION..... | 3 |
| 4-1 Display..... | 3 |
| 4-2 Power Button..... | 3 |
| 4-3 Range Switch (Hi/Lo Switch)..... | 3 |
| 4-4 Zero Button..... | 3 |
| 4-5 Stand..... | 3 |
| 4-6 Battery Compartment/Cover..... | 3 |
| 4-7 UV Probe Handle..... | 3 |
| 4-8 UV Sensor..... | 3 |
| 5. MEASURING PROCEDURE..... | 4 |
| 6. MEASURING CONSIDERATION..... | 4 |
| 7. BATTERY REPLACEMENT..... | 5 |

1. FEATURES

- * Professional, high quality UV meter.
- * Ultra-violet irradiation measurement for UVA & UVB.
- * UV detector spectrum from 290 nm to 390 nm.
- * Hi, Lo measurement range. 19990 and 1999 $\mu\text{W}/\text{cm}^2$.
- * Exclusive UV sensor structure.
- * Sensor with cosine correction filter.
- * Build Zero button.
- * Microprocessor circuit provides high reliability and durability.
- * Separate UV LIGHT probe allows user to measure the UV light at an optimum position.
- * LCD display, easy readout.
- * Heavy duty & compact housing case.

2. APPLICATIONS

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.

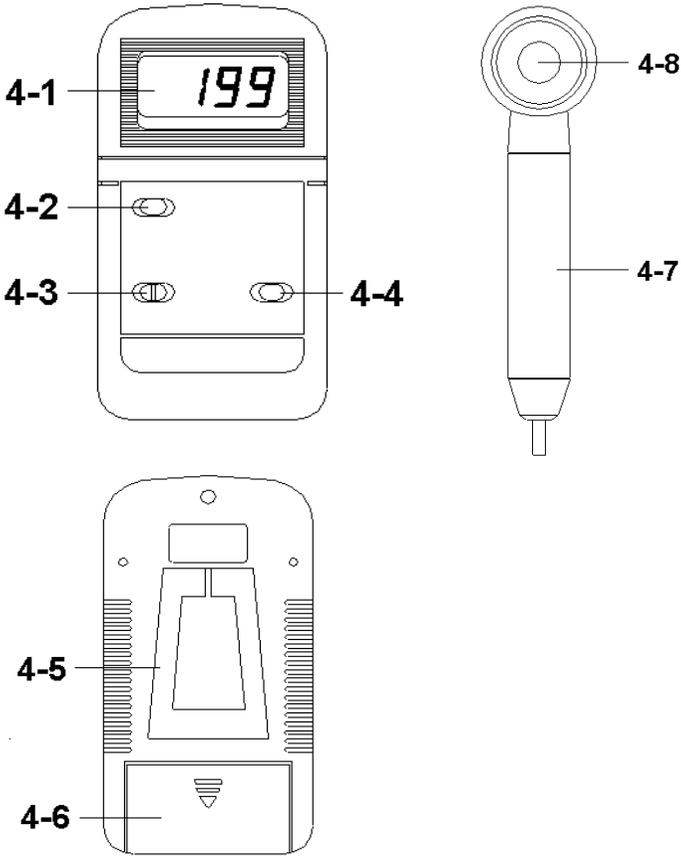
Laboratory

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

3. SPECIFICATIONS

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|---------------------------------|--|
| Display | LCD size : 18 mm x 45 mm. Maximum indication 1999. |
| Measurement ranges & resolution | <i>2 ranges : Hi & Lo range</i> Lo range : 1999 $\mu\text{W}/\text{cm}^2$ x 1 $\mu\text{W}/\text{cm}^2$ Hi range : 19990 $\mu\text{W}/\text{cm}^2$ x 10 $\mu\text{W}/\text{cm}^2$ <i>* 1000 $\mu\text{W}/\text{cm}^2 = 1 \text{ mW}/\text{cm}^2$</i> |
| UV sensor spectrum | Band pass 290 nm to 390 nm. |
| Accuracy | $\pm (4 \% \text{ FS} + 2 \text{ dgt})$ FS : full scale <i>* Calibration is executed under the UVA light & and compare with the standard UVA light meter.</i> <i>* Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.</i> |
| Sensor structure | The exclusive UV photo sensor with the cosine correction filter. |
| Buttons. Switch | Power button, Zero button, Range switch |
| Sample Time | Approx. 1 sec. |
| Over Range indication | Indication of " - - - - - " . |
| Weight | 251 g / 0.55 LB (including battery) |
| Operating Temp. | 0 to 50 °C . |
| Operating Humidity | Less than 85% R.H. |
| Power Supply | DC 9V battery, 006P , MN 1604 (PP3) or equivalent. |
| Power Consumption | Approx. DC 6 mA. |
| Size | Main instrument : 131 x 70 x 25 mm. Sensor probe head : 45 mm dia x 32 mm. Sensor probe handle : 125 x 24 mm dia. |
| Accessories Included | Instruction manual..... 1 PC. UV sensor probe..... 1 PC. |
| Optional Acc. | Soft carrying case, CA-52A, CA-03. |

4. FRONT PANEL DESCRIPTION



- 4-1 Display
- 4-2 Power Button
- 4-3 Range Switch (Hi/Lo Switch)
- 4-4 Zero Button
- 4-5 Stand
- 4-6 Battery Compartment/Cover
- 4-7 UV Probe Handle
- 4-8 UV Sensor

5. MEASURING PROCEDURE

1) Push the " Power Button (4-2, Fig. 1) continuously until the " Display " (4-1, Fig. 1) on then release the " Power Button : will power ON the meter.

** After power ON if push the " Power Button (4-2, Fig. 1) once a while again will power OFF the meter.*

2) Select the max. range on the " Range Switch " (4-3, Fig. 1).

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| Lo range : 1999 $\mu\text{W}/\text{cm}^2$ x 1 $\mu\text{W}/\text{cm}^2$ |
| Hi range : 19990 $\mu\text{W}/\text{cm}^2$ x 10 $\mu\text{W}/\text{cm}^2$ |
| * 1000 $\mu\text{W}/\text{cm}^2 = 1 \text{ mW}/\text{cm}^2$ |

3) Hold the " Probe Handle " (4-7, Fig. 1) & let " UV Sensor" (4-8, Fig. 1) face to measuring UV light source , then the Display (4-1, Fig. 1) will show values of UV light on the display reading.

6. MEASURING CONSIDERATION

1) As the " Lo range " is designed & to measure the UV light values more than 2000 $\mu\text{W}/\text{cm}^2$. If the measured UV light values more than 1999 $\mu\text{W}/\text{cm}^2$, it should select the " Range Switch " to the " Hi range " to get the exact measuring value.

** Under the " Lo range " if the " Display show "  ", it means the measurement value already over range, then should select the " Range Switch " (4-3. Fig. 1) to the " Hi " position (19990 $\mu\text{W}/\text{cm}^2$ range).*

2) Zero Button (4-4, Fig. 1) can be operated under the Lo range (1999 $\mu\text{W}/\text{cm}^2$ range) and the display value $\leq 100 \mu\text{W}/\text{cm}^2$ only.

2) Storage for the " UV sensor "

UV sensor is with extremely precise structure.

Once don't use it , be sure to store it in the dry environment.

For example, put the whole sensor including Desiccant (Drier) into to the Plastic bag and seal the bag as tightly as possible. Take the sensor out of the bag only when use it. Comply to above method will extend the life of UV sensor. Otherwise, the gain of the UV SENSOR may be decreased and shorten the calibration period. It is also necessary to replace the Desiccant (Drier) periodically.

7. BATTERY REPLACEMENT

- 1) When LCD display shows "  " in the left corner, It is necessary to replace the battery. However, in-spec measurement may still be made for several hours after low battery appears.
- 2) Slide the " Battery Cover " (4-6, Fig. 1) away from the instrument and remove the battery.
- 3) Replace with 9V battery and reinstate the cover.
- 4) Make sure the battery cover is secured after changing the battery.