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# Instruction Manual

## MG-01

### (UV Radiometer)



- 1. Features and applications**
- 2. Parts and Accessories**
- 3. Installment**
- 4. Function**
- 5. The characteristics of UV Sensor**
- 6. After Sales service request**

#### **! Precaution**

This manual contains important information on safety precautions and product handling to prevent an accident. Make sure to read this manual carefully before using this product.

Keep this manual in a safe place where you can find easily after reading this manual.

Seller will bear no responsibility over the loss or malfunction caused by unauthorized disassembly and reassembly.

## 1. Features and Applications

### 1) Features

Display the absolute power, relative power, and accumulative operation time of each UVA, UVB and UVC by connecting the proper sensor part to the display part.

Also, Voltage (0~5V) or Current (4~20mA) output display is available by using output terminal.

### 2) Applications

UV Lamp monitoring / Water Sterilization / Air Purification / UV Curing / UV Emitter

## 2. Parts and Accessories

1) Display Part : LCD Module & Control board (Input Voltage : DC5V), 80×107×30 mm<sup>3</sup> Black ABS Material

2) Power Adapter : Input Voltage : AC220V 60Hz, Output Voltage : 9VDC 300 mA

3) Exterior Output Line : RJ11 Connector, The length is over 2 m. (Connecting to the Output terminal of the display part.)

4) Sensor Part : Information of Sensor Probe is in the enclosed Certificate of Quality (CQ)

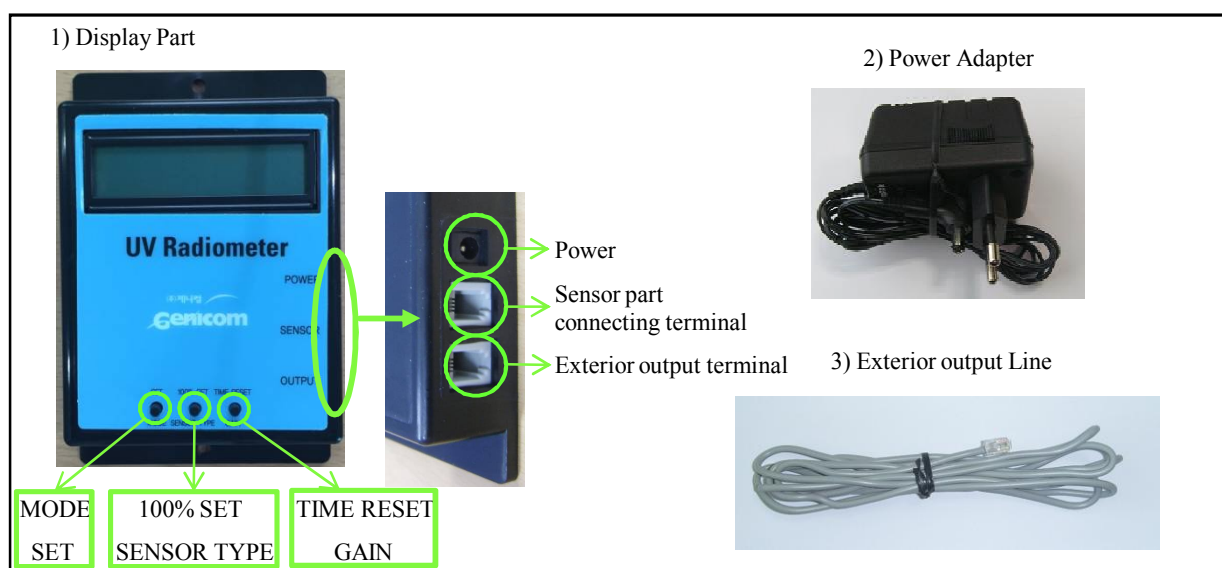


Fig. 1 UV Radiometer 1

Weight (Display part)	500	g
LCD Display (Display part)	16characters×2Line (56×11.5)	mm
Operating Temperature (Display part)	-15 ~ 65	°C
Operating Temperature (Sensor part)	-30 ~ 85	°C

Table 1. Information of UV Radiometer 1

### 3. Installation

- 1) Connect the power adapter to 220V consent and connect the connecting jack to the power terminal of the display part.
- 2) Connect the sensor part to the display part by using sensor connector.
- 3) Connect the RJ11 connector of Exterior output line to the output terminal of the display part and peel the cover of the other side.  
Then, there are 4 lines as below and each color is red, black (or blue), green, and yellow. The Red and black (or blue) lines are ground lines. The green line is (+) terminal of the voltage output and the yellow line is (+) terminal of the current output.

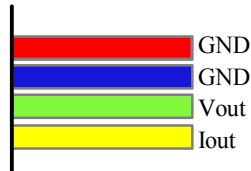
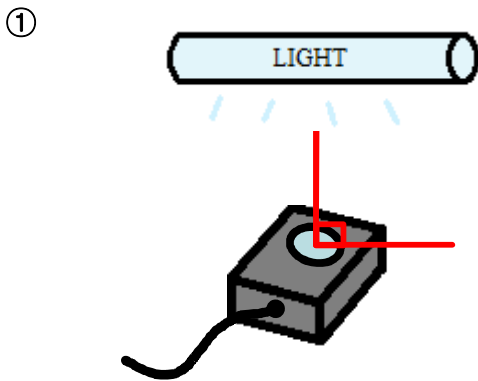


Fig. 2 Connection method of exterior output line

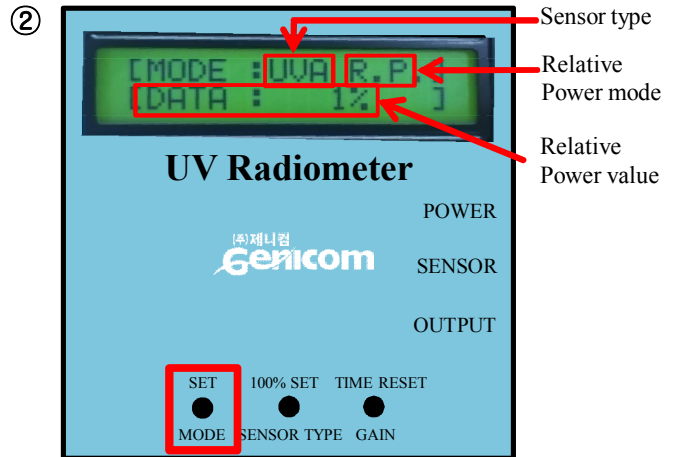
### 4. Functions

- 1) Relative power : Unit [%], Output range : 0 ~ 100%  
Function :Display the % Value according to the adjusted 100% setting value.

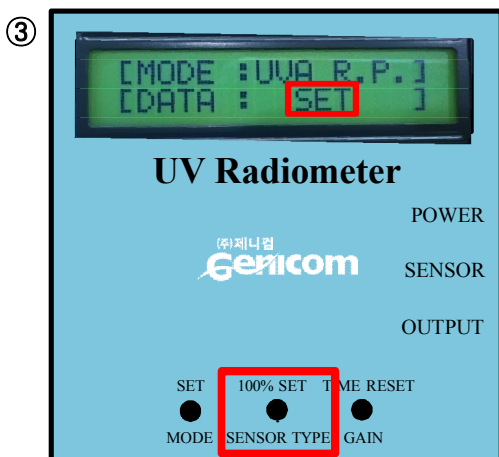
Usage



Put the sensor part as the distance from the light vertically.



Change the Relative power display mode by pushing Mode button .

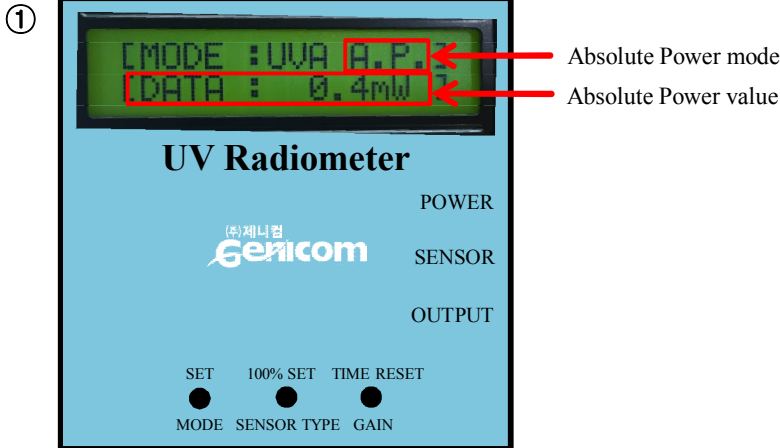


push the 100% Set button until the letters “Set” is displayed. The value at the moment is set as 100%.

2) Absolute power : Unit [ $\mu\text{W}$ ]

Function : Display the absolute power of each sensor parts' wavelength.

Usage



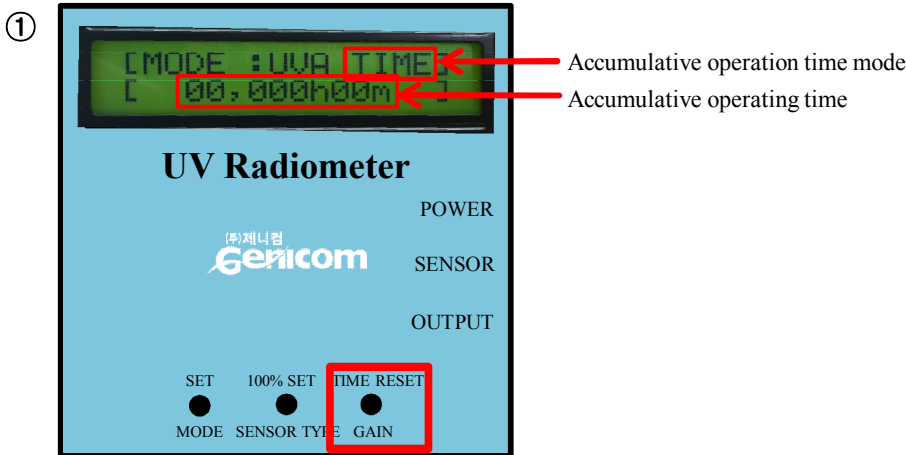
Set the sensor mode on the display part as the sensor of the Sensor part identically. (UVV/UVA/UVB/UVC)

(Basically the value is set to the UV Sensor part. refer the item 4) of 4 in case of changing.)

3) Accumulative operation time : Unit : [hrs] 00,000h00Min~87,600h00m (0 minute~10 years)

Function : Accumulate the operation time as the minute unit when the relative power is over 10% of 100% power.

Usage



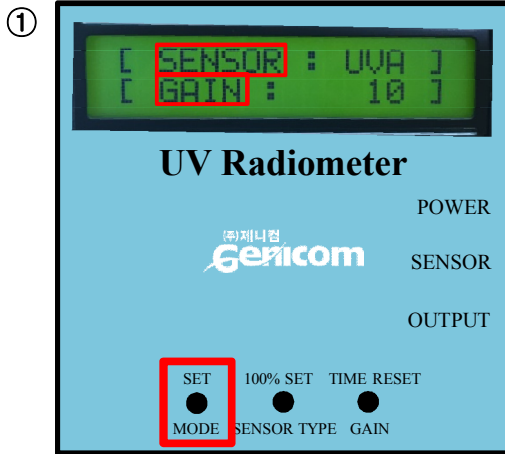
Push the TIME RESET over 3 seconds and the accumulative operation time becomes 0 minute reset.

\*Caution : The accumulative operation time is memorized only when the adapter connector is removed from the display part. (The accumulative operation time is not memorized when the adapter is connected and the power is eliminated)

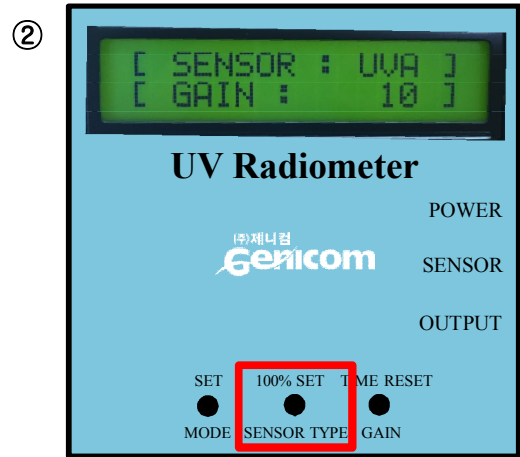
4) How to change the Sensor type mode

The sensor type of the display part should be changed along the which sensor part is changed.

Setting method



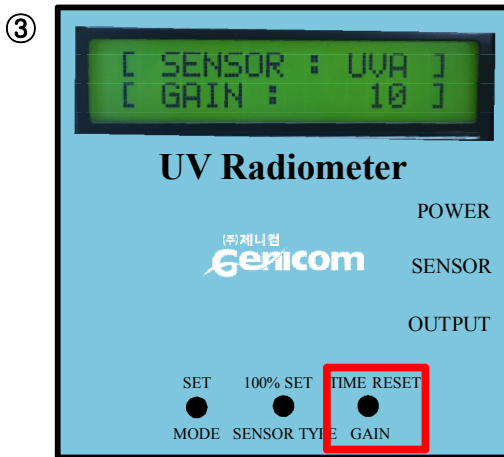
Push the Set button for some seconds, the display is changed as Sensor and Gain mode.



Push the Sensor type button on the display part, the sensor type is changed in the order of

UVV → UVA → UVE → UVB → UVU

for each one push. Set the sensor type along the sensor part.



Push the Gain button on the display part, the gain unit is changed in the order

1 → 10 → 100 → 1 for each one push.

Set the gain along the sensor part.

## 5. The characteristics of UV Sensor

Type	Detection Range (nm)	Power Range (mW/cm <sup>2</sup> )		
		Gain : 1	Gain : 10	Gain : 100
UVV	230 ~ 390	0.01 ~ 9.99	0.1 ~ 99.9	1 ~ 999
UVA	220 ~ 370	0.01 ~ 9.99	0.1 ~ 99.9	1 ~ 999
UVB	220 ~ 320	0.01 ~ 9.99	0.1 ~ 99.9	1 ~ 999
UVC	220 ~ 280	0.01 ~ 9.99	0.1 ~ 99.9	1 ~ 999

Table 2. Characteristic of UV Sensor

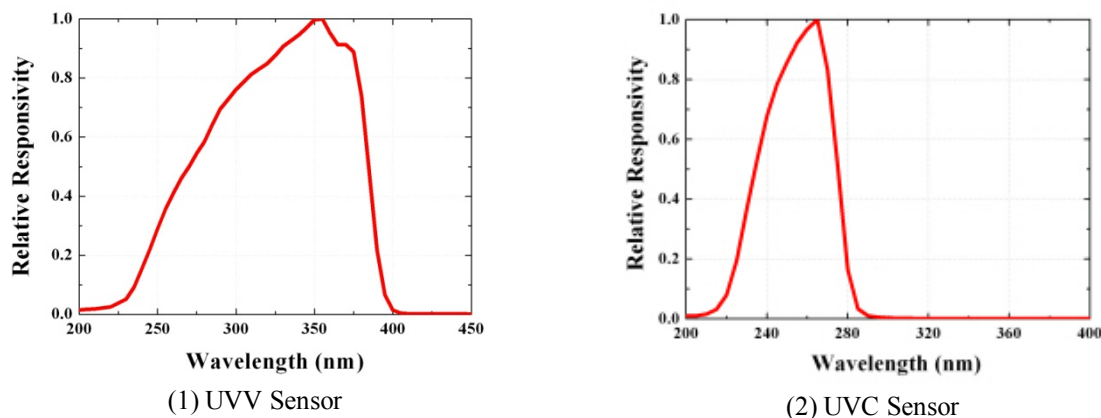


Fig. 3 Relative Responsivity of UV sensor

## 6. After sales service request

- 1) In case of malfunction of the product, please inform the malfunction to the vender or Customer service center and claim after sales service.
- 2) The warranty is 1 year after the purchase. within the warranty period, the after sales service is provided for free. However, the repairing cost can be charged to the customer if the malfunction is caused by customer's misusage or the warranty period is expired.
- 3) Customer Service Center Phone number: +82-42-862-3982, [Fax]: +82-42-862-2982  
Product inquiry and On-line customer support : [www.geni-uv.com](http://www.geni-uv.com) or mail to [uvsensor@geni-uv.com](mailto:uvsensor@geni-uv.com)