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Genuine UV Technology



# Manual

# Radiometer 7.1

GUVX-T1XGS7.1-L

GUVX-T1XGS7.1-LA9

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# **MG-07.1**

# **[GUVX-T1XGS7.1-L]**

# **Manual**



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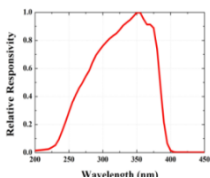
## 1. Product Features and Specifications

Description: The GUVX-T1XGS7.1-L are portable instruments with a LCD display.

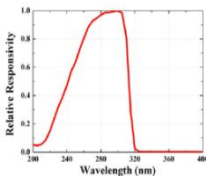
Item	TOTAL UV (UVA+B)	UVB	UVC	UVC-LED	Blue light	UV INDEX
Model name	<sup>1)</sup> GUVV-T10GS7.1-L	<sup>2)</sup> GUVB-T11GS7.1-L	<sup>3)</sup> GUVC-T10GS7.1-L	<sup>4)</sup> GUVL-T11GS7.1-L	<sup>5)</sup> GVBL-T12GS7.1-L	<sup>6)</sup> GUVI-T11GS7.1-L
Detection Power range	0.00 – 99.99 mW/cm <sup>2</sup> *					0~50.0 UVI
Spectral detection range	230 ~ 395 nm	220 ~ 320 nm	220 ~ 280 nm	220 ~ 320 nm	330 ~ 445 nm	220 ~ 320 nm
Calibration peak point	365 nm (LED)	306 nm (Lamp)	254 nm (Lamp)	285 nm (LED)	385/405 nm (LED)	Solarsimulator
Resolution	0.1 mW/cm <sup>2</sup>					0.1 UVI
Function	Absolute Power (mW/cm <sup>2</sup> ), Dose (J/cm <sup>2</sup> , Cumulative time : Max. 12 min.), Max. Power (mW/cm <sup>2</sup> )					Index(UVI)
Conversion rate	3 Readings/Sec					
Display	4.0 Digit LCD					
LCD size	17 x 44 mm					
Operation temperature	0 ~ 60 °C					
Operation humidity	RH 10 ~ 85 %					
Accuracy	± 10 % (NIST Traceable)					
Indicator size	73 x 139 x 31 mm					
weight	Indicator: 100 g (Without battery)					
Power	DC 9V Battery					

\* Customization is available (Maximum of detection power : 10W/cm<sup>2</sup>)

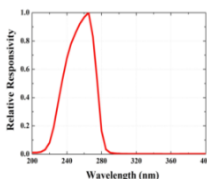
## 2. Relative Response Curve



1) GUVV-T10GS7.1-L

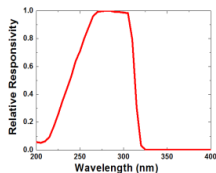


2) GUVB-T11GS7.1-L

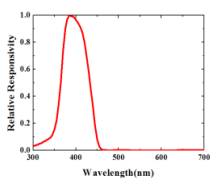


3) GUVV-T10GS7.1-L

6) GUVI-T11GS7.1-L









4) GUVL-T11GS7.1-L



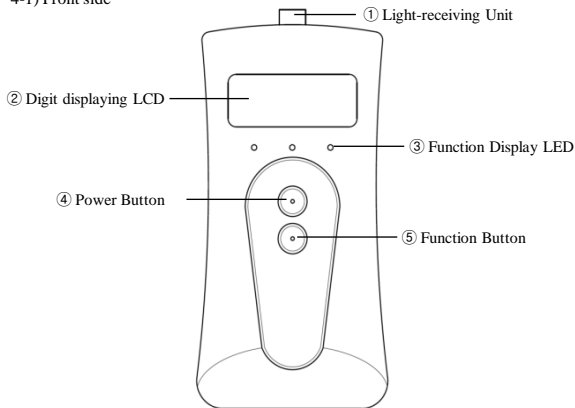
5) GVBL-T12GS7.1-L

## 3. Caution

	Wear protective gear when monitoring UV lamps.
	Allow lamps to warm-up prior to taking reading (at least 5 minutes).
	Do not subject the meter to extremes in temperature, humidity, shock or dust.
	When the surface contamination of the product, wipe with a soft, clean cloth.
	Keep sensor free of oil, dirt, etc.
	Do not disassemble or modifications.

#### 4. Part Names

##### 4-1) Front side



[UV Radiometer 7.1 front side]

① Light-receiving Unit

② Digit displaying LCD  
 This is a four-digit LCD display.

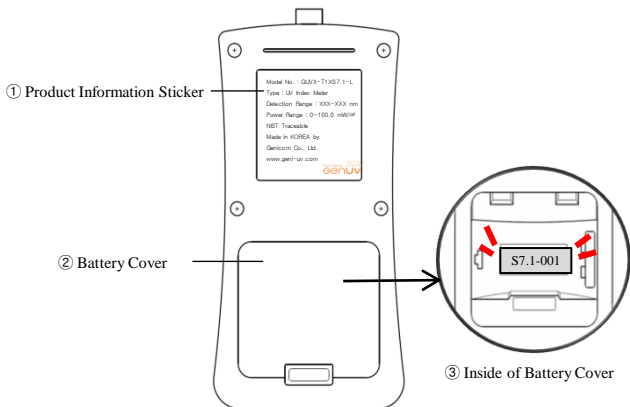
③ Function Display LED

▪ Red : Absolute Power [ $\text{mW}/\text{cm}^2$ ]	In the case of index meter	▪ Red : Index [UVI]
▪ Green : Dose [ $\text{J}/\text{cm}^2$ ]	→	▪ Green : No meaning
▪ Yellow : Max. Power [ $\text{mW}/\text{cm}^2$ ]		▪ Yellow : Max. index [UVI]

④ Power Button  
 Turns the power on/off.

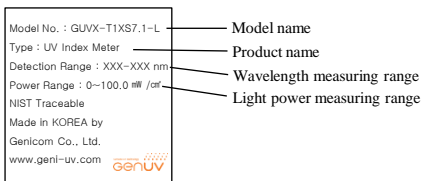
⑤ Function Button  
 Switches the display of Absolute power [ $\text{mW}/\text{cm}^2$ ], Dose [ $\text{J}/\text{cm}^2$ ], and Max. Power [ $\text{mW}/\text{cm}^2$ ].  
 You can perform either Dose [ $\text{J}/\text{cm}^2$ ] or Max. Power [ $\text{mW}/\text{cm}^2$ ].

#### 4-2) Back side



[UV Radiometer 7.1 back side]

#### ① Product Information Sticker



#### ② Battery Cover

This is a 9V battery cover.

Open the battery cover to insert and replace the battery.

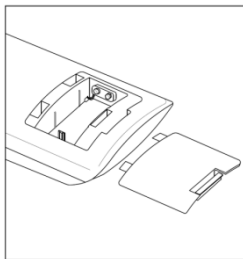
#### ③ Inside of Battery Cover

Serial number can be checked inside of battery cover.



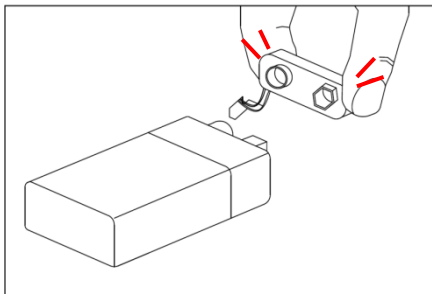
## 5. Product Operation Method

### 5-1) Battery check



Remove the battery cover on the back of the main unit and check if the 9V battery is included.

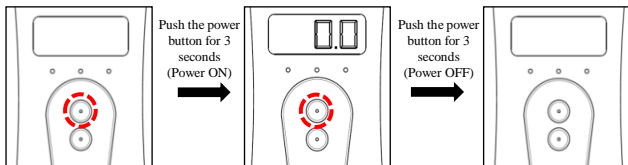
### 5-2) Precautions for battery replacement



Pulling the connector forcibly can cause it to break.  
Please hold the battery connector and detach the battery.

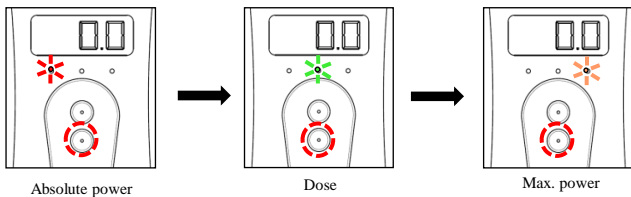
### 5-3) Power ON or OFF

If you push the power button for 3 seconds, translate the device ON/OFF.



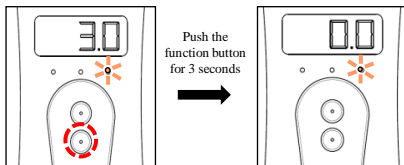
### 5-4) Function button

If push the function button, the function display will change in order.  
 (ex. Absolute power -> Dose -> Max. power -> Absolute power ...)

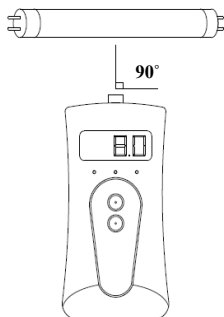


### 5-5) Reset cumulative light intensity(Dose) or maximum light intensity(Max. Power)

Select the function that you want. And push the function button for 3 seconds.  
 Or turn the power off and on.

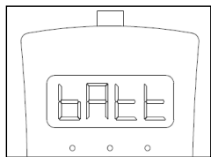


#### 5-6) Measuring the light power



The sensor is located on top of the body.  
The measurement surface of the sensor is positioned perpendicular to the UV light source or solar light that you want to measure.

#### 5-7) Notify when to replace the battery



If the [batt] message is displayed on the LCD or if the screen is blurred, replace the battery.

※ If there is no data input value for more than 90 seconds, the power is automatically turned off.

## 6. FAQ

Error item	Check list
When power is not turned on	Press and hold the power button for more than 3 seconds. A short push will not power up.
	Please make sure that 9V battery is installed.
	Make sure that the battery power is at least 7 V. If it is below 7 V, the power is not turned on or the [batt] message is output.
When the screen is dimmed	Please replace the battery. Depending on the voltage consumption of the battery, the screen may become blurred.
When the [batt] phrase is displayed	This indicates when the battery should be replaced. Please replace the battery.
When the measured value is [0.0]	Check that the light source is on. For UV index meters, measurements may be impossible on cloudy days.
	Make sure that the incident surface of the sensor probe is perpendicular to the light source.
	Check the detection wavelength range of the measuring instrument and the wavelength of the light source. The detection wavelength range can be found on page 4 of the manual and on the back of the measuring instrument.
When the measured value differs depending on the light source	Please check page 5 relative response curve. Even if included in the measurement range, the output value may vary depending on the wavelength of the light source. The calibration light source information for the measuring instrument can be found on page 4.
When the measured value is measured low	In the case of a UV index meter, the measured value may be low or not measured on cloudy days.
	Make sure that the sensor measuring surface is positioned perpendicular to the light source. If the angle is tilted, accurate measurements will not be made.
	Check if there is foreign substance on the sensor measurement surface. Foreign matter such as oil or dust can cause a decrease in light quantity.
When power is off during use	If there is no input value for more than 90 seconds, the power is automatically turned off. In this case, it is in normal operation.

※ If any problem occurs other than the above, please contact the sales company or A / S center.

## 7. A/S Request in Case of Product Failure

- Should any failure is found in product, please call the sales company or customer center for A/S.
- Product warranty period is 1 year from the date of procurement with no charge.  
However, failure which is caused by user's misuse or carelessness within warrant period or any failure after the warrant period shall be chargeable for it's A/S.
- Product inquiry and on-line customer service Tel : +82-42-862-3982, Fax : +82-42-862-2982  
E-mail : [uvsensor@geni-uv.com](mailto:uvsensor@geni-uv.com) Website : <http://www.geni-uv.com>

# MG-07.1

# [GUVX-T1XGS7.1-LA9]

# Manual



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maximum light intensity(Max. power)
  - 5-7. Measuring the light power
  - 5-8. Notify when to replace the battery
6. FAQ
7. Request for A/S in Case of Abnormality

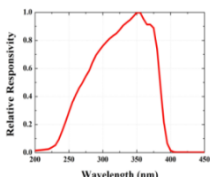
## 1. Product Features and Specifications

Description: The GUVX-T1XGS7.1-LA9 are portable instruments with a LCD display.

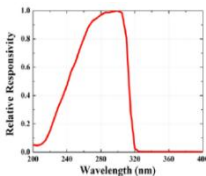
Item	TOTAL UV (UVA+B)	UVB	UVC	UVC -LED	Blue light	UV INDEX
Model name	<sup>1</sup> GUVV-T10GS7.1-LA9	<sup>2</sup> GUVB-T11GS7.1-LA9	<sup>3</sup> GUVV-T10GS7.1-LA9	<sup>4</sup> GUVL-T11GS7.1-LA9	<sup>5</sup> GVBL-T12GS7.1-LA9	<sup>6</sup> GUVI-T11GS7.1-LA9
Detection Power range	0.00 ~ 99.99 mW/cm <sup>2</sup> *					0~50.0 UVI
Spectral detection range	230 ~ 395 nm	220 ~ 320 nm	220 ~ 280 nm	220 ~ 320 nm	330 ~ 445 nm	220 ~ 320 nm
Calibration peak point	365 nm (LED)	306 nm (Lamp)	254 nm (Lamp)	285 nm (LED)	385/405 nm (LED)	Solarsimulator
Resolution	0.1 mW/cm <sup>2</sup>					0.1 UVI
Function	Absolute Power (mW/cm <sup>2</sup> ), Dose (J/cm <sup>2</sup> , Cumulative time : Max. 12 min.), Max. Power (mW/cm <sup>2</sup> )					Index(UVI)
Conversion rate	3 Readings/Sec					
Display	4.0 Digit LCD					
LCD size	17 x 44 mm					
Operation temperature	0~60 °C					
Operation humidity	RH 10 ~ 85 %					
Accuracy	±10 % (NIST Traceable)					
Indicator size	73 x 139 x 31 mm					
Sensor probe size	Ø 35, 25.5 h					
weight	Indicator : 100 g (Without battery), Sensor probe : 80g					
Power	DC 9V Battery					

\* Customization is available (Maximum of detection power : 10W/cm<sup>2</sup>)

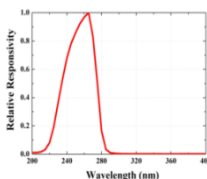
## 2. Relative Response Curve



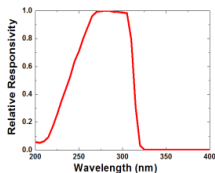
1) GUVV-T10GS7.1-LA9



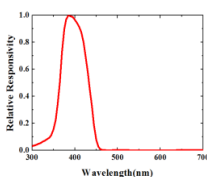
2) GUVB-T11GS7.1-LA9



3) GUVVC-T10GS7.1-LA9









4) GUVL-T11GS7.1-LA9



5) GVB-L-T12GS7.1-LA9

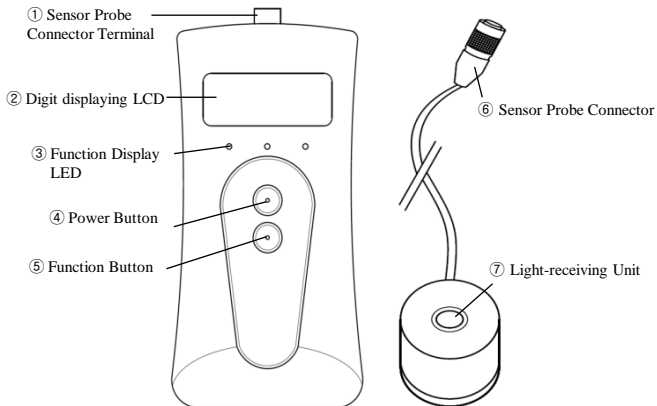
## 3. Caution

	Wear protective gear when monitoring UV lamps.
	Allow lamps to warm-up prior to taking reading (at least 5 minutes).
	Do not subject the meter to extremes in temperature, humidity, shock or dust.
	When the surface contamination of the product, wipe with a soft, clean cloth.
	Keep sensor free of oil, dirt, etc.
	Do not disassemble or modifications.



#### 4. Part Names

##### 4-1) Front side & sensor probe



[UV Radiometer 7.1 front side & sensor probe]

① Sensor Probe Connector Terminal

② Digit displaying LCD  
 This is a four-digit LCD display.

③ Function Display LED

▪ Red : Absolute Power [ $\text{mW}/\text{cm}^2$ ]	In the case of index meter	▪ Red : Index [UVI]
▪ Green : Dose [ $\text{J}/\text{cm}^2$ ]	→	▪ Green : No meaning
▪ Yellow : Max. Power [ $\text{mW}/\text{cm}^2$ ]		▪ Yellow : Max. index [UVI]

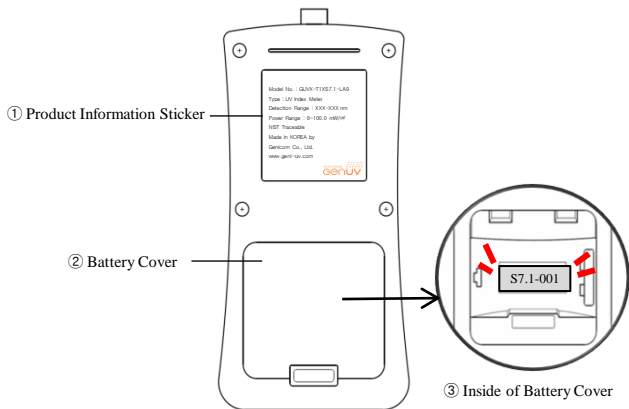
④ Power Button  
 Turns the power on/off

⑤ Function Button  
 Switches the display of Absolute power [ $\text{mW}/\text{cm}^2$ ], Dose [ $\text{J}/\text{cm}^2$ ], and Max. Power [ $\text{mW}/\text{cm}^2$ ].  
 You can perform either Dose [ $\text{J}/\text{cm}^2$ ] or Max. Power [ $\text{mW}/\text{cm}^2$ ].

⑥ Sensor Probe Connector

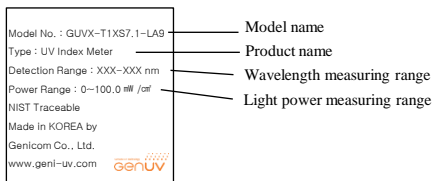
⑦ Light-receiving Unit

#### 4-2) Back side



[UV Radiometer 7.1 back side]

#### ① Product Information Sticker



#### ② Battery Cover

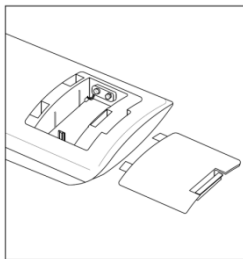
This is a 9V battery cover.  
 Open the battery cover to insert and replace the battery.

#### ③ Inside of Battery Cover

Serial number can be checked inside of battery cover.

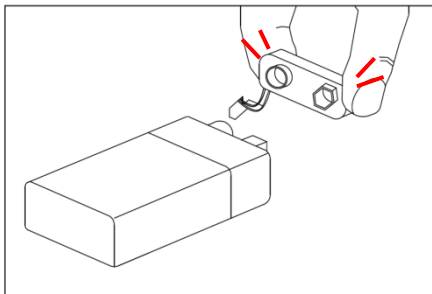
## 5. Product Operation Method

### 5-1) Battery check



Remove the battery cover on the back of the main unit and check if the 9V battery is included.

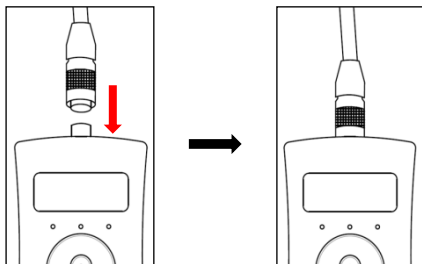
### 5-2) Precautions for battery replacement



Pulling the connector forcibly can cause it to break.  
Please hold the battery connector and detach the battery.

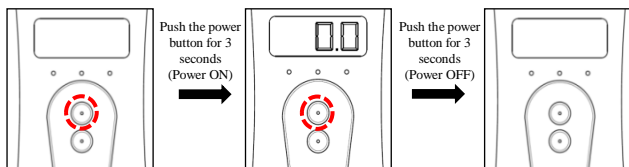
### 5-3) Sensor probe connection

Connect the sensor probe to indicator. If you connect it in the right direction, it will be fixed with a 'click' sound.



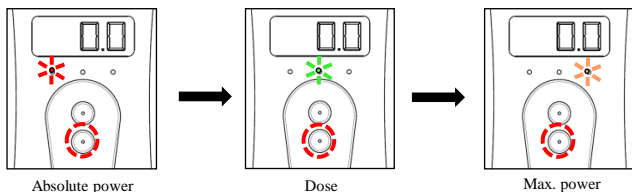
### 5-4) Power ON or OFF

If you push the power button for 3 seconds, translate the device ON/OFF.



### 5-5) Function button

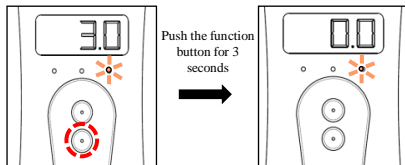
If push the function button, the function display will change in order.  
 (ex. Absolute power -> Dose -> Max. power -> Absolute power ...)



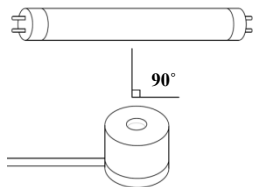
#### 5-6) Reset cumulative light intensity(Dose) or maximum light intensity(Max. Power)

Select the function that you want. And push the function button for 3 seconds.

Or turn the power off and on.

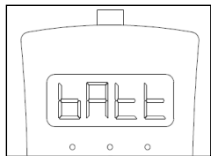


#### 5-7) Measuring the light power



The sensor is located on top of the sensor probe.  
The measurement surface of the sensor is positioned Perpendicular to the UV light source or solar light that you want to measure.

#### 5-8) Notify when to replace the battery



If the [batt] message is displayed on the LCD or if the screen is blurred, replace the battery.

※ If there is no data input value for more than 90 seconds, the power is automatically turned off.

## 6. FAQ

Error item	Check list
When power is not turned on	Press and hold the power button for more than 3 seconds. A short push will not power up.
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E-mail : [uvsensor@geni-uv.com](mailto:uvsensor@geni-uv.com) Website : <http://www.geni-uv.com>

# MEMO

