

User Manual R1.1  
Santacary Technology Co. Ltd.  
XAR-UC UVC Light Meter



## **INTRODUCTION**

Congratulations on your purchase of this Santacary XAR-UC UVC Light Meter. XAR-UC is a precise meter that measures ultraviolet UVC radiation.

UVC wavelength is 200-275 nm, also known as short wave sterilization ultraviolet. Peak wavelength of the curve between it and bactericidal efficiency (265 nm) is very close, so when 253.7 nm radiation reaches a certain value, it can be used to treat intestinal bacteria, *Aspergillus flavus* and HBsAg (hepatitis B surface antigen) and other pathogens were killed in a short time. Ultraviolet germicidal lamp emits UVC short wave ultraviolet.

UVC light applications are used for odor control, sterilization, and elimination of VOCs and industrial exhausts containing solvents. Germicidal UV purifies the air from microorganisms that cause illness and contaminants. The use of UVC in odor control has many applications, including wastewater plants, farms, HVAC (Heating, Ventilation and Air Conditioning), and food processing plants.

## **FEATURES**

- ✧ Gallium Nitride Based Material Photovoltaic Mode
- ✧ High-precision detection, rapid response and operation
- ✧ Good Visible Blindness
- ✧ Display the maximum UVC radiation intensity for all-time
- ✧ With temperature and humidity measurement
- ✧ Only two buttons and easy to operate
- ✧ Four AA Alkaline Batteries

## **APPLICATION:**

- ✧ Monitoring UVC Germicidal Lamp Intensity & Aging
- ✧ Monitoring Water Treatment Disinfection Lamp Intensity & Aging
- ✧ Testing Eyewear UVC Blocking Capabilities

- ✧ Measuring Germicidal Lamp Fixture Leakage
- ✧ Testing UVC Intensity in Semiconductor Fabrication, Offset Printing, Environmental Monitoring and Industrial Process Control.

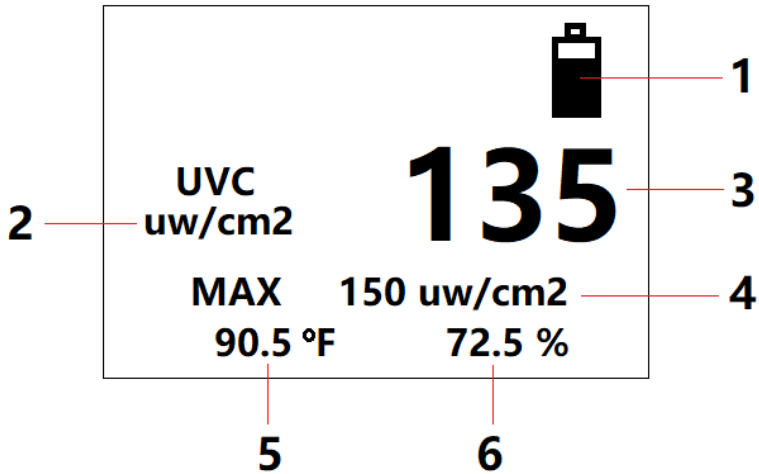
## **DEVICE**

1. UVC sensor
2. LCD display
3. Power button
4. Function button
5. Battery compartment back cover



**DISPLAY**

- 1. Battery gauge
- 2. Radiation intensity unit
- 3. UVC radiation intensity
- 4. Maximum UVC radiation intensity
- 5. Temperature
- 6. Relative humidity




## OPERATION


Note:

- LCD backlight will turn off automatically after 2 minutes of inactivity.
- When LCD backlight is off, press any button to turn on the backlight.

### 1. Power Button

#### 1.1 Turn On/Turn Off Meter


1) When the meter is turned off, press  to turn on the unit.

2) When the meter is turned on, press  for 2 seconds to turn off the unit.

When the unit is first turned on, it performs 1 second countdown for meter warm up, then enters normal display with current UVC,

temperature, and humidity readings displayed. The meter starts taking measurements when power on and updates readings every 2 seconds. The UVC radiation intensity unit is  $\mu\text{W} / \text{cm}^2$ .

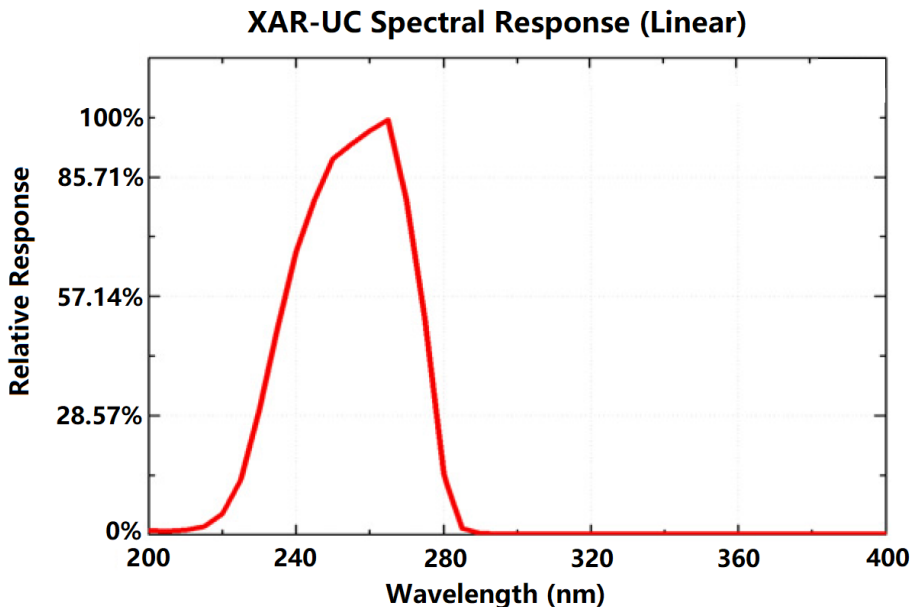
## 1.2 Reset UV Maximum Record

Press  shortly to reset the maximum record of UVC radiation intensity.

## 2. Function Button **FUNC**

Press **FUNC** shortly to switch two temperature units: °F and °C.

## SPECTRAL RESPONSE



## SPECIFICATIONS

### UVC Specification

UVC Measurement Range	0 to 3500 $\mu\text{W}/\text{cm}^2$
Spectral Detection Range	220 to 280 nm
Peak point of Spectrum	265 nm
Measurement accuracy	$\pm 4\%$ or $\pm 1$ digits
Resolution	1.0 $\mu\text{W}/\text{cm}^2$
Temperature Range	-10 to 50°C (14 to 122°F)
Humidity Range	0 to 90%RH

### Temperature Specification

Temperature Range	-10.0~60.0°C (14~140°F) display
Display Resolution	0.1°C (0.1°F)
Display Options	°C/°F switchable
Accuracy	$\pm 0.5^\circ\text{C}$ ( $\pm 0.9^\circ\text{F}$ )
Response Time	5~30 seconds (device must equilibrate with environment)

### RH Specification

Measurement Range	0.0~99.9%RH
Display Resolution	1%RH
Accuracy	$\pm 4.5\%$ RH
Response Time	<8 seconds for 63% of step change

### General

Operating	-10°C to 50°C (14°F to 122°F), 0~90% RH non-condensing
Storage	-10°C to 60°C (14°F to 140°F), <99% RH non-condensing
Power Supply	Four AA Alkaline Batteries
Dimensions	75x165x25 mm (2.95x6.49x0.98")

Weight	118 grams (4.16 oz.) without batteries
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### **MATERIALS SUPPLIED**

- ✧ Santacary XAR-UC UVC Light Meter
- ✧ Protector Bag
- ✧ English User Manual
- ✧ Four AA Alkaline Batteries

### **CLEANING AND STORAGE**

The front panel and case can be cleaned carefully with a soft wet cloth. Allow drying completely before using. Do not use aromatic hydrocarbons or chlorinated solvents for cleaning.

### **WARRANTY**

The XAR-UC is warranted to be free from defects in material and workmanship for a period of two year from the date of purchase. This warranty covers normal operation and does not cover misuse, abuse, alteration, neglect, improper maintenance.

### **CONTACT US**

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