SNAKOL SK-8305A

SNAKOL SK-8305A Digital UV Illuminometer

User Manual

1. Introduction

The SNAKOL SK-8305A is a high-precision digital UV illuminometer designed for accurate measurement of ultraviolet (UV) radiation intensity across UVA, UVB, and UVC bands. This device is suitable for various applications requiring precise UV radiation monitoring. This manual provides essential information for the safe and effective operation of your SK-8305A illuminometer.

2. Safety Information

- Read all instructions carefully before operating the device.
- Do not expose the device to extreme temperatures, humidity, or direct sunlight for prolonged periods.
- Avoid dropping the device or subjecting it to strong impacts.
- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Keep the device away from strong electromagnetic fields.
- Clean the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.

3. Package Contents

Verify that all items are present in the package:

- SNAKOL SK-8305A Digital UV Illuminometer
- Type-C Charging Cable
- User Manual
- Carrying Case (if included with your model)

Figure 3.1: Contents of the SK-8305A package, showing the illuminometer, Type-C charging cable, and a protective carrying case.

4. Product Overview

The SK-8305A features a compact design with an integrated sensor and a clear digital display. Key components include the UV sensor, LCD display, control buttons, and a Type-C charging port.

Figure 4.1: Front, side, and back views of the SK-8305A illuminometer, highlighting its compact dimensions and button layout.

4.1. Controls and Display

- **UV Sensor:** Located at the top, for detecting UV radiation.
- **LCD Display:** Shows UV intensity (μW/cm² or mW/cm²) and temperature (°C/°F).
- **HOLD Button:** Freezes the current reading on the display.
- **UNIT Button:** Toggles between measurement units (e.g., μW/cm² and mW/cm², °C and °F).
- **REC/MODE Button:** Initiates data recording or changes measurement mode.
- **SEL Button:** Selects UV band (UVA, UVB, UVC) or other settings.
- **Power Button:** Turns the device on or off.

5. Specifications

Feature	Specification
Measuring Range UVA	0.1μW/cm² ~ 9999μW/cm², 1mW~100mW/cm²

Feature	Specification
Measuring Range UVB	0.1μW/cm² ~ 9999μW/cm², 1mW~100mW/cm²
Measuring Range UVC	0.1μW/cm² ~ 9999μW/cm², 1mW~25mW/cm²
UVA Wavelength Range	315nm ~ 420nm
UVB Wavelength Range	280nm ~ 315nm
UVC Wavelength Range	248nm ~ 260nm
Peak Wavelength UVA	345nm
Peak Wavelength UVB	295nm
Peak Wavelength UVC	254nm
Digital Sensor/Sampling Rate	8 times/second
Storage Number of Strokes	999 strokes
Communication Functions	Wired (USB) and Wireless
Power Supply	Built-in Li-ion Polymer Battery, 2000mAh
Charging Port	Type-C
Product Dimensions	185 x 64 x 30 mm (7.28 x 2.52 x 1.18 inches)
Weight	Approximately 178g
Display Size	48 x 35 mm
Auto Power Off	Yes
Real-time Clock	Yes, for data timestamping

6. Setup

6.1. Charging the Device

The SK-8305A comes with a built-in lithium battery. Before first use, or when the battery indicator is low, charge the device using the provided Type-C charging cable. Connect the cable to the Type-C port on the device and a standard USB power adapter (not included).

6.2. Initial Power On

Press and hold the **Power Button** (red circle) to turn on the device. The LCD display will illuminate, showing the current UV intensity and temperature readings.

7. Operating Instructions

7.1. Basic Measurement

1. Turn on the device using the **Power Button**.
2. Point the UV sensor directly at the UV source or area you wish to measure.
3. The real-time UV radiation intensity will be displayed on the LCD screen.

7.2. Selecting UV Band (UVA/UVB/UVC)

Press the **SEL Button** to cycle through UVA, UVB, and UVC measurement modes. The selected mode will be indicated on the display.

7.3. Changing Units

Press the **UNIT Button** to switch between different measurement units for UV intensity (e.g., μW/cm² and mW/cm²) and temperature (°C and °F).

7.4. Data Hold Function

Press the **HOLD Button** to freeze the current reading on the display. Press it again to release the hold and resume real-time measurement.

7.5. Data Recording

The device supports recording up to 999 sets of data. Press the**REC/MODE Button** to initiate or stop data recording. The instrument's real-time clock timestamps each record.

7.6. Computer Communication

The SK-8305A features wired (USB) and wireless communication functions. Connect the device to a computer to access recorded data, set alarm values, configure recording intervals, and generate PDF reports or data tables using the provided software.

7.7. Germicidal Lamp Testing Procedure

For accurate germicidal lamp testing, follow these steps:

1. Turn on the UV illuminometer and point its detector at the UV source of the germicidal lamp.
2. Allow the instrument to stabilize, then read and record the UV illuminance value.
3. Take several measurements at different locations to obtain more accurate results.
4. Compare the measured UV radiation illuminance value with relevant standards to determine if the UV radiation intensity of the germicidal lamp is adequate.
5. If test results do not meet standard requirements, inspect the germicidal lamp's working condition for damage or aging, and take appropriate measures such as adjustment or replacement.

Figure 7.1: Visual guide for the steps involved in testing a germicidal lamp with the SK-8305A.

8. Maintenance

8.1. Cleaning

Wipe the device exterior with a soft, dry, lint-free cloth. Do not use liquid cleaners or solvents. Ensure the UV sensor is kept clean and free of dust or smudges for accurate readings.

8.2. Storage

When not in use, store the SK-8305A in its protective carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. Ensure the battery is partially charged before long-term storage.

9. Troubleshooting

- **Device does not power on:** Ensure the battery is charged. Connect the device to the Type-C charger and try again.
- **Inaccurate readings:** Check if the UV sensor is clean and unobstructed. Ensure the device is held steadily and pointed correctly at the UV source.
- **Display is blank or frozen:** Try pressing the **HOLD Button** to release a held reading. If unresponsive, power off and restart the device.

- **Cannot connect to computer:** Verify the USB cable connection. Ensure the correct software drivers are installed on your computer.

10. Warranty and Support

SNAKOL products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase documentation or visit the official SNAKOL website. Do not attempt to repair the device yourself, as this may void the warranty.