

Sekonic C-800-U

Sekonic Spectrometer C-800-U Instruction Manual

Model: C-800-U

1. INTRODUCTION

The Sekonic Spectrometer C-800-U is a professional full-spectrum color and illuminance meter designed for precise measurement of various light sources, including LED, HMI, fluorescent, and electronic flash. It provides comprehensive data for color rendering and spectral similarity evaluation, essential for demanding photography and cinematography workflows.

Key features include:

- Full-spectrum measurement from 380nm to 780nm with a CMOS sensor.
- Wide Correlated Color Temperature (CCT) range from 1,600K to 40,000K.
- Measures ambient light from 1lx to 200,000lx and flash from 20lx·s to 20,500lx·s.
- Advanced color metrics: CRI, TLCI, TLMF, TM-30-18, and SSI.
- Provides CIE 1931 x,y chromaticity coordinates for precise LED matching.
- Features a 4.3-inch color touchscreen and a 270° swivel head for ergonomic operation.

2. WHAT'S IN THE BOX

Upon unboxing your Sekonic Spectrometer C-800-U, verify that all components are present:

- Sekonic Spectrometer C-800-U unit
- Soft carrying case
- Start-up Guide / Instruction Manual
- Lanyard (may vary by package)
- USB cable (may vary by package)



Image: The Sekonic Spectrometer C-800-U unit.

3. SETUP

3.1. Battery Installation

The Sekonic C-800-U requires two AA batteries (not included). For optimal performance and longevity, rechargeable

NiMH batteries are recommended.

1. Locate the battery compartment cover on the back of the meter.
2. Slide the cover open.
3. Insert two AA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.





Image: Rear view of the Sekonic C-800-U, illustrating the battery compartment and tripod mount.

3.2. Initial Power On and Language Selection

After installing batteries, press and hold the power button to turn on the device. The meter will prompt you to select a language. Use the touchscreen to choose your preferred language (e.g., English).

3.3. Dark Calibration

The C-800-U performs a dark calibration upon startup or when initiated manually. This process ensures accurate measurements by establishing a baseline. Keep the light sensor covered or in a dark environment during calibration.



Video: Unboxing, battery installation, and initial power-on sequence of the Sekonic Spectrometer C-800-U. This video demonstrates how to prepare the device for first use, including inserting batteries and selecting the operating language.

4. OPERATING INSTRUCTIONS

4.1. Selecting Measurement Mode

The C-800-U offers various measurement modes. Rotate the selector dial on the top of the meter to switch between ambient light measurement (sun icon) and flash measurement (lightning bolt icon). Press the 'CAL' button for dark calibration.

4.2. Taking a Measurement

To take a measurement, point the light sensor (diffuser dome) towards the light source or subject as required by your measurement objective. Press the large 'MEASURE' button located on the side of the unit. The measurement results will be displayed on the touchscreen.





Image: The C-800-U display showing Correlated Color Temperature (CCT) and Color Rendering Index (Ra) values.

4.3. Navigating Display Screens

The 4.3-inch color touchscreen allows you to navigate through various display screens to view different color metrics and spectral data. Tap on the icons to switch between views such as:

- **Text Mode:** Displays numerical values for CCT, CRI, TLCI, SSI, etc.
- **Spectrum Mode:** Visualizes the spectral power distribution of the light source.
- **CRI/TLCI/SSI Screens:** Detailed breakdown of color rendering metrics.
- **Chromaticity Coordinates (x,y):** For precise color matching.





Image: The C-800-U menu screen, showing options for Text, Spectrum, CRI, SSI, TLCI/TLMF, and other measurement modes.





Image: The C-800-U display showing Spectral Similarity Index (SSI) and a detailed spectrum graph.





Image: The C-800-U display showing CCT, Hue, Saturation, and CIE 1931 x,y chromaticity coordinates.

5. SPECIFICATIONS

Product Dimensions	7.2 x 2.87 x 1.06 inches
Item Weight	8.2 ounces
Item Model Number	401-800 (C-800-U)
Manufacturer	Sekonic
Measurement Range (CCT)	1,600K to 40,000K
Measurement Range (Ambient)	1lx to 200,000lx

Measurement Range (Flash)	20lx-s to 20,500lx-s
Sensor Type	CMOS sensor
Display	4.3" Color Touchscreen LCD
Operating Temperature	-10 to 40°C

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the meter’s body and screen. For the light sensor, use a lens cleaning cloth or air blower to remove dust. Avoid abrasive cleaners or solvents.
- **Storage:** Store the meter in its protective carrying case when not in use. Avoid extreme temperatures, high humidity, and direct sunlight.
- **Battery Care:** Remove batteries if the meter will not be used for an extended period to prevent leakage.
- **Calibration:** Perform dark calibration regularly as instructed by the device or manual to maintain measurement accuracy.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter does not power on.	Dead or incorrectly inserted batteries.	Replace batteries with fresh ones, ensuring correct polarity.
Inaccurate readings.	Sensor dirty, improper calibration, or incorrect measurement mode.	Clean the sensor, perform dark calibration, and verify the correct measurement mode is selected.
Touchscreen unresponsive.	Temporary software glitch or screen protector interference.	Restart the device. If a screen protector is installed, ensure it is properly applied and not interfering with touch sensitivity.

8. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation included with your product or visit the official Sekonic website. For technical support, service, or inquiries regarding protection plans, please contact Sekonic customer service directly. Optional protection plans may be available for extended coverage. Please check with your retailer or Sekonic for details on available plans, such as 3-Year Protection Plans or Complete Protect options.

Manufacturer: Sekonic

Website: [Visit the Sekonic Store on Amazon](#)