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- › [AOPUTTRIVER](#) /
- › [AOPUTTRIVER AP-5000A Digital Light Meter Instruction Manual](#)

AOPUTTRIVER AP-5000A

AOPUTTRIVER AP-5000A Digital Light Meter Instruction Manual

Model: AP-5000A

1. PRODUCT OVERVIEW

The AOPUTTRIVER AP-5000A is a professional digital light meter designed for accurate measurement of illumination in various environments. It supports measurement of fluorescent, incandescent, and LED lamps up to 400,000 Lux (40,000 FC). Key features include a 270-degree rotatable detector, data logging capabilities, and connectivity for real-time monitoring.

AOPUTTRIVER

High Precision Light Meter



Temperature



Back Light



Data Hold



Auto Power
Off



Low Battery
Indication

MAX/MIN

MAX/MIN



Figure 1: AOPUTTRIVER AP-5000A Digital Light Meter highlighting its main features.

2. PACKAGE CONTENTS

Verify that all items listed below are present and in good condition upon opening the package. If any items are missing or damaged, please contact customer support.

- AP-5000A Light Meter x 1
- Carrying Bag x 1
- AAA Batteries x 2
- Screwdriver x 1
- User Manual x 1



Figure 2: All items included in the AP-5000A package.

3. PRODUCT COMPONENTS

Familiarize yourself with the different parts of your AP-5000A Digital Light Meter:

1. **Photodetector:** Sensor for light measurement.
2. **Liquid Crystal Display (LCD):** Displays measurement readings and settings.
3. **ON/OFF Button:** Powers the device on or off.
4. **HOLD Button:** Freezes the current measurement on the display.
5. **MEM Button:** Accesses data logging memory.
6. **LUX/FC Button:** Toggles between Lux and Foot-Candle measurement units.
7. **MAX/MIN Button:** Displays maximum or minimum recorded values.
8. **Backlight Switch Button:** Activates or deactivates the LCD backlight.

AP-5000A

Digital Lux Meter

Measurement
range:

1-400,000Lux



Figure 3: Labeled components of the AP-5000A Digital Light Meter.

4. SETUP

4.1 Battery Installation

1. Locate the battery compartment on the back of the device.
2. Use the provided screwdriver to open the battery compartment cover.
3. Insert two AAA batteries, ensuring correct polarity (+/-).
4. Replace the battery compartment cover and secure it with the screw.

4.2 Initial Power On

Press the **ON/OFF** button to power on the device. The LCD will illuminate and display the current light and temperature readings.

5. OPERATING INSTRUCTIONS

5.1 Taking Measurements

Remove the protective cap from the photodetector. Point the photodetector towards the light source you wish to measure. The current light intensity will be displayed on the LCD.

5.2 Unit Selection (Lux/FC)

Press the **LUX/FC** button to switch between Lux and Foot-Candle measurement units. The selected unit will be indicated on the LCD.

5.3 Temperature Unit Selection (°C/°F)

The device also measures temperature. Refer to the manual for specific button combinations to switch between Celsius (°C) and Fahrenheit (°F) temperature units.

5.4 Data Hold

Press the **HOLD** button to freeze the current reading on the display. Press it again to release and resume live measurement.

5.5 MAX/MIN Measurement

Press the **MAX/MIN** button to cycle through maximum, minimum, and real-time values recorded during a measurement session. This helps identify peak and lowest light levels.

5.6 Backlight Operation

Press the **Backlight Switch** button to turn the LCD backlight on or off, improving readability in low-light conditions.



Figure 4: Comparison of the AP-5000A with backlight off and on.

6. ROTATABLE DETECTOR

The AP-5000A features a 270-degree rotatable silicon filter diode sensor. This design allows you to measure photometric intensity from various angles without needing to reposition the entire meter. Simply rotate the sensor to face the light source while keeping the display visible for easy reading.

270° Rotatable Detector

Measure light from all directions and angles with the special swivel sensor



Figure 5: The 270-degree rotatable detector for flexible measurement.

7. DATA LOGGING

The meter supports data logging for up to 30 groups of measurements. This feature allows you to record and review light level data over time, which is useful for monitoring changes in lighting conditions for applications like plant growth or aquarium environments. Refer to the detailed instructions in the full user manual for specific steps on how to initiate, save, and recall data logs using the **MEM** button.

8. APP CONNECTIVITY

The AP-5000A can connect to a smartphone application via Bluetooth. This allows for real-time tracking of data, remote control of certain functions, and advanced data analysis. Download the official AOPUTTRIVER app from your device's app store and follow the in-app instructions to pair your light meter.

9. APPLICATIONS

The AOPUTTRIVER AP-5000A is a versatile tool suitable for a wide range of applications requiring precise

light measurement:

- **Indoor Plant Growing:** Optimizing light levels for various plant species.
- **Aquariums:** Ensuring appropriate lighting for aquatic life.
- **Photography and Videography:** Setting up ideal lighting conditions.
- **Workplace and School Environments:** Assessing illumination for comfort and productivity.
- **Public Spaces:** Measuring light in libraries, stages, and street lighting.
- **Industrial Settings:** Monitoring lighting in factories and warehouses.



Figure 6: Diverse applications of the AP-5000A Light Meter.

10. MAINTENANCE AND CARE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents. Ensure the photodetector is kept clean and free of dust for accurate readings.
- **Storage:** When not in use, store the meter in its carrying bag with the protective cap on the photodetector. Store in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the LCD to ensure continuous accurate operation.

- **Auto Shutdown:** The device features an automatic shutdown function after 15 minutes of inactivity to conserve battery life.

11. TROUBLESHOOTING

- **No Display/Power On:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate Readings:** Ensure the photodetector is clean and unobstructed. Verify that the correct measurement unit (Lux/FC) is selected. Avoid measuring in rapidly changing light conditions.
- **App Connection Issues:** Ensure Bluetooth is enabled on your smartphone and the meter. Restart both the app and the meter. Check that the app is up to date.
- **"OL" Display:** Indicates an overload, meaning the measured light intensity exceeds the meter's maximum range.

12. SPECIFICATIONS

Feature	Specification
Model Number	AP-5000A
Measuring Range	0.1 ~ 400,000 Lux (0.1 ~ 40,000 FC)
Resolution	0.1 LUX/FC
Accuracy	$\leq 10000\text{Lux}$: $\pm 4\%$ rdg $\pm 1.0\%$ f.s. $\geq 10,000\text{Lux}$: $\pm 5\%$ rdg $\pm 1.5\%$ f.s. $\geq 200,000\text{Lux}$: $\pm 8\%$ rdg $\pm 2.0\%$ f.s
Detector Rotation	270 degrees
Data Logging Capacity	Up to 30 groups
Automatic Shutdown	After 15 minutes of inactivity
Display	HD Backlight LCD
Power Source	2 x AAA Batteries
Item Weight	7.8 ounces
Package Dimensions	7.99 x 3.43 x 1.93 inches

13. WARRANTY AND SUPPORT

AOPUTTRIVER products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the contact details provided on the product packaging or visit the official AOPUTTRIVER website. Keep your purchase receipt as proof of purchase for warranty claims.

