Landtek MILA48500

Landtek MILA48500 Digital Illuminance Lux Light Meter Datalogger User Manual

Model: MILA48500

1. Introduction

This manual provides instructions for the safe and effective operation of the Landtek MILA48500 Digital Illuminance Lux Light Meter Datalogger. This device is designed for measuring illuminance (brightness) in various environments, offering a wide measurement range, data logging capabilities, and Bluetooth connectivity for real-time monitoring.

Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage.

2. Safety Information

- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Keep the device away from water, moisture, and extreme temperatures.
- Remove batteries if the device will not be used for an extended period to prevent leakage.
- Dispose of batteries and the device according to local regulations.
- Avoid pointing the light sensor directly at extremely bright light sources for prolonged periods, as this may affect sensor longevity.

3. Package Contents

Verify that all items are present upon unpacking:

- Digital Illuminance Lux Light Meter Datalogger (MILA48500)
- Carrying Pouch
- English Instruction Manual
- 2 x 1.5V AAA Batteries (pre-installed or included separately)

Figure 3.1: The Landtek MILA48500 Lux Meter package contents, showing the meter, a black protective pouch, and the instruction manual.

4. Device Overview

Familiarize yourself with the components of the Landtek MILA48500 Lux Meter:

Figure 4.1: Front and rear view of the Landtek MILA48500 Lux Meter with labeled components. Key parts include the light sensor, LCD screen, various function buttons (MAX/MIN, HOLD, UNIT, Power), and the battery compartment.

- **Light Sensor:** Detects ambient light.
- **LCD Screen:** Displays measurement readings, units, and status indicators. Features a backlight for low-light conditions.
- **MAX/MIN Button:** Toggles between maximum and minimum recorded values.
- **HOLD Button:** Freezes the current reading on the display. Also activates Bluetooth when pressed for 2 seconds.
- **UNIT Button:** Switches between LUX and FC measurement units. Also activates the backlight when pressed for 2 seconds.
- **Power Button:** Turns the device on or off.
- **Battery Compartment:** Located on the rear, houses two AAA batteries.

5. Setup

5.1 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open it.
3. Insert two 1.5V AAA batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Replace the battery compartment cover securely.

5.2 Powering On/Off

- **To Power On:** Press the **Power Button** (). The LCD screen will illuminate.
- **To Power Off:** Press the **Power Button** again. The device also features an automatic power-off function to conserve battery life.

6. Operating Instructions

6.1 Basic Measurement

After powering on, the device will immediately begin measuring illuminance. Point the light sensor towards the light source or area you wish to measure.

6.2 Unit Selection (LUX / FC)

Press the **UNIT Button** to toggle between LUX (lux) and FC (foot-candle) measurement units. The selected unit will be displayed on the LCD screen.

Figure 6.1: The meter's display showing measurements in FC (left) and LUX (right) units.

6.3 Data Hold Function

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

6.4 MAX / MIN Display

Press the **MAX/MIN Button** to cycle through the maximum, minimum, and current readings recorded since the device was powered on or the function was reset. The display will indicate 'MAX' or 'MIN' accordingly.

6.5 Backlight Function

Press and hold the **UNIT Button** for approximately 2 seconds to turn the LCD backlight on or off.

6.6 Measurement Range Multipliers

The meter automatically adjusts its measurement range. When 'X10' or 'X100' appears on the display, the displayed reading must be multiplied by that factor to obtain the actual illuminance value.

Figure 6.2: Explanation of how to interpret readings when 'X10' or 'X100' multipliers are active on the display.

- If 'X10' is displayed, multiply the reading by 10. For example, a display of 16.47 with 'X10' means 164.7 LUX.
- If 'X100' is displayed, multiply the reading by 100. For example, a display of 16.47 with 'X100' means 1647 LUX.

6.7 Bluetooth Connectivity and Data Logging

The device supports Bluetooth connectivity for real-time monitoring and data logging via a compatible smartphone application.

Figure 6.3: The Lux Meter connected to a smartphone via Bluetooth, displaying real-time data and a historical graph.

1. **Activate Bluetooth:** Press and hold the **HOLD Button** for approximately 2 seconds. A Bluetooth icon will appear on the meter's display.
2. **Download App:** Download the official Landtek application from your smartphone's app store.
3. **Connect:** Open the app on your smartphone and follow the instructions to pair with the MILA48500 device. The Bluetooth range is up to 10 meters.
4. **Data Logging:** The app allows for unlimited real-time online recording and data export. The meter can also store up to 2000 groups of data for offline recording, which can be downloaded to the app later.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents. Ensure the light sensor is kept clean and free of dust.
- **Storage:** Store the device in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries.

- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display to ensure accurate readings.

8. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly installed batteries.	Check battery polarity. Replace with new AAA batteries.
Inaccurate readings.	Dirty light sensor; low battery; incorrect unit/multiplier interpretation.	Clean the light sensor. Replace batteries. Ensure correct interpretation of LUX/FC units and X10/X100 multipliers.
Bluetooth connection fails.	Bluetooth not activated on meter; app issue; out of range.	Press and hold HOLD button for 2s to activate Bluetooth. Restart app/phone. Ensure meter is within 10m of phone.
Display is dim or flickering.	Low battery.	Replace batteries.

9. Specifications

Feature	Specification
Measurement Method	Integral type
Range	0.1~200000 LUX / 0.01~20000 FC
Measuring Levels (LUX)	200 / 2,000 / 20,000 / 200,000
Measuring Levels (FC)	20 / 200 / 2,000 / 20,000
Accuracy	±(4% + 10 digits) (calibrated under standard incandescent lamp 2856°K)
Resolution (LUX)	<200: 0.1; ≥200: 1
Resolution (FC)	<20: 0.01; 20≤FC<200: 0.1; ≥200: 1
Display	4-digit LCD, max 1999

Feature	Specification
Screen Size	34 x 31mm
Light Sensor	Silicon photodiode with filter
Sampling Rate	Approx. 2 times per second
Incident Angle	120°
Repeatability Deviation	±2%
Spectral Range	400~700nm
Bluetooth Range	Up to 10 meters proximity
Operating Conditions	-10~50°C, max 80% RH, indoor altitude <2000m
Storage Conditions	-10~50°C, max 70% RH (with battery removed)
Power Supply	2 x 1.5V AAA batteries
Dimensions	150 x 56 x 28mm
Weight	Approx. 150g (excluding batteries)

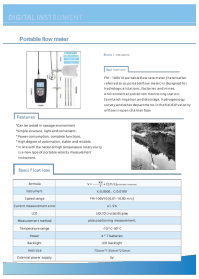
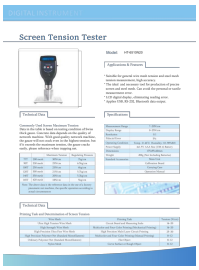
Figure 9.1: Physical dimensions and weight of the Landtek MILA48500 Lux Meter.

10. Warranty and Support

This product is covered by a manufacturer's warranty. Please refer to the warranty card included in your package or contact Landtek customer support for detailed warranty terms and conditions.

For technical assistance, troubleshooting, or service inquiries, please contact your local distributor or the manufacturer directly. Contact information can typically be found on the manufacturer's website or on the product packaging.

Related Documents - MILA48500

	[LANDTEK GM-6, GM-26, GM-268 Gloss Meter Operation Manual] Detailed operation manual for the LANDTEK GM-6, GM-26, and GM-268 Gloss Meters, covering features, specifications, usage, calibration, data management, and troubleshooting.
	[LANDTEK FM-100V10 Portable Flow Meter - Digital Instrument] Discover the LANDTEK FM-100V10, a versatile portable flow meter designed for accurate velocity measurement in open channels. Features include a liquid crystal display, wide speed range, and robust design for various environmental applications.
	[LANDTEK HT-6510N20 Screen Tension Tester: Specifications and Applications] Explore the technical specifications, features, and application data for the LANDTEK HT-6510N20 Screen Tension Tester, a precision instrument for measuring mesh tension.
	[Belt Tension Tester BTT-2880 - LANDTEK Specifications and Features] Detailed specifications, features, and dimensions for the LANDTEK BTT-2880 Belt Tension Tester, designed for accurate measurement of belt tension in various industries like automotive and textile.
	[Water Activity Meter WA-60A User Manual and Technical Specifications] Detailed user manual and technical specifications for the Guangzhou Landtek Instruments Co., Ltd WA-60A Water Activity Meter. Learn about its features, parameters, operation, and maintenance.