

## FNIRSI FPM-02

# FNIRSI FPM-02 Environmental Monitor User Manual

Model: FPM-02 | Brand: FNIRSI

## 1. INTRODUCTION

The FNIRSI FPM-02 is a high-precision 3-in-1 environmental monitor designed for measuring illuminance (lux), temperature, and humidity. It features a 2-inch color display for clear data visualization and is suitable for various professional applications including office lighting assessment, horticulture, laboratories, and photography studios.

## 2. WHAT'S IN THE BOX

- FNIRSI FPM-02 Environmental Monitor
- USB Cable
- Carry Case
- User Manual

## 3. KEY FEATURES

- 3-in-1 Measurement:** Monitors Lux, temperature, and humidity simultaneously.
- 2-inch Color Screen:** High-definition display with light and dark theme modes for optimal readability.
- Real-time Data & Curve Recording:** Visualizes environmental changes over time.
- Adjustable Alarm Thresholds:** Alerts users when measurements exceed set values.
- Fast Sampling Rate:** 20Hz (50ms) for real-time monitoring.
- Dual-language Interface:** Supports English and Chinese.
- Built-in Sleep Mode & Data Logging:** Enhances battery efficiency and usage tracking.



Figure 1: FNIRSI FPM-02 Environmental Monitor with key features highlighted on its color screen.

## 4. SETUP

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### 4.1 Charging the Device

1. Connect the provided USB cable to the FNIRSI FPM-02's charging port.
2. Plug the other end of the USB cable into a standard USB power adapter (not included) or a computer's USB port.
3. The device will indicate charging status on its screen. A full charge typically takes approximately 2-3 hours.

### 4.2 Powering On/Off

- To power on: Press and hold the Power button (usually located on the side or front panel) until the screen illuminates.
- To power off: Press and hold the Power button until the device shuts down.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Navigating the Interface

The FPM-02 features a user-friendly interface with a 2-inch HD color screen. Use the navigation buttons (up, down, left, right, OK/Enter) to move through menus and select options. The device supports both English and Chinese languages, which can be selected in the settings menu.

### 5.2 Taking Measurements (Illuminance, Temperature, Humidity)

Upon powering on, the device typically defaults to the main measurement screen, displaying real-time values for illuminance (Lux/FC), temperature (°C/°F), and relative humidity (%).

- **Illuminance:** Ensure the light sensor (located at the top of the device) is unobstructed and pointed towards the light source or area to be measured. The device will display the light intensity in LUX or FC.
- **Temperature & Humidity:** The internal sensors continuously monitor ambient temperature and humidity. Allow a few minutes for readings to stabilize after significant environmental changes.

### 5.3 Real-time Data and Curve Recording

The device can display real-time data and record changes over time, presenting them as a curve. Access this feature through the main menu to visualize trends and fluctuations in environmental conditions.

### 5.4 Setting Alarm Thresholds

You can set custom alarm thresholds for Lux, temperature, and humidity. If a measured value exceeds or falls below the set threshold, the device will trigger an alert. Refer to the device's settings menu to configure these thresholds.

### 5.5 Sleep Mode and Data Logging

To conserve battery, the device features a configurable sleep mode. It also includes data logging capabilities, allowing you to store measurement data for later review and analysis. Consult the user manual for detailed instructions on activating and managing these functions.

## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents. Ensure the light sensor and display are kept clean for accurate readings.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, ensure the battery is partially charged (around 50%) to prolong its lifespan.
- **Battery Care:** Avoid fully discharging the lithium battery frequently. Recharge the device when the battery level is low.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the device using the provided USB cable.
Inaccurate readings.	Sensor obstructed or dirty; device not calibrated.	Clean sensors. Ensure proper placement. If issues persist, contact support.
Screen is unresponsive.	Software glitch; extreme temperature.	Restart the device. Ensure operating within specified temperature range.

## 8. TECHNICAL SPECIFICATIONS

Parameter	Value
Model Number	FPM-02
Illuminance Range	0–1000 / 9999 / 99990 LUX; 10–1000 / 1000 / 10000 FC
Illuminance Resolution	0.1 LUX (0–1000); 0.1 FC (10–1000)
Illuminance Accuracy	±(3% + 5 LUX) with standard incandescent lamp (2854°K); ±(6% + 5 LUX) for other light sources
Sampling Time	20Hz (50ms)
Display	2" HD Color Screen
Power Source	3.7V / 1500mAh Lithium Battery
Device Dimensions	63 × 28 × 182 mm
Weight	205g
Color	Black & Blue
Country of Origin	China

## 9. WARRANTY AND SUPPORT

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This FNIRSI FPM-02 Environmental Monitor comes with a standard manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions.

For technical support, troubleshooting assistance, or warranty claims, please contact the retailer or manufacturer directly. Keep your purchase receipt as proof of purchase.