

[Manuals.plus](#) /

› [Walfront](#) /

› Walfront LS122 IR Power Meter Instruction Manual

Walfront LS122

Walfront LS122 IR Power Meter Instruction Manual

Model: LS122

1. INTRODUCTION

The Walfront LS122 IR Power Meter is a compact, handheld instrument designed for precise measurement of infrared radiation luminance. It is an essential tool for evaluating the infrared barrier properties of various materials, including building and automotive insulation films, heat-insulating glass, and other transparent materials. This device also measures the irradiance of infrared light sources such as solar radiation and general infrared lamps, and assesses the thermal performance of solar energy equipment.

Featuring a large LCD display and a data hold function, the LS122 provides clear, visual, and reliable results. Its user-friendly operation, compact size, and lightweight design make it highly portable and convenient for a wide range of applications.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the Walfront LS122 IR Power Meter. Failure to follow these instructions may result in injury or damage to the device.

- **Battery Safety:** Use only the specified type and number of batteries (4 x AAA alkaline batteries). Ensure correct polarity when installing. Do not mix old and new batteries or different types of batteries. Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Environmental Conditions:** Operate the device within the specified operating temperature range (-20°C to +70°C). Avoid exposing the device to extreme temperatures, high humidity, dust, or direct sunlight.
- **Handling:** Handle the device with care. Avoid dropping or subjecting it to strong impacts. Do not attempt to disassemble or modify the device, as this will void the warranty and may cause damage or malfunction.
- **Cleaning:** Clean the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Intended Use:** This device is intended for measuring infrared radiation luminance. Do not use it for purposes other than its intended function.

3. PRODUCT OVERVIEW

The LS122 IR Power Meter features a clear LCD display, intuitive control buttons, and a robust design for reliable performance.



Figure 3.1: Front view of the Walfront LS122 IR Power Meter with approximate dimensions (120mm x 67mm x 24mm).



Figure 3.2: Close-up view of the LS122 display and control buttons.

3.1. Controls and Display

- **LCD Display:** Shows irradiance in W/m^2 and IR rejection rate in percentage.
- **Power Button (⏻):** Press to turn the device ON or OFF.
- **HOLD Button:** Press to freeze the current measurement on the display. Press again to release.
- **0% Button:** Used to zero out the IR rejection rate measurement.

4. SETUP

4.1. Battery Installation

The LS122 IR Power Meter requires 4 AAA alkaline batteries (not included) for operation.

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover downwards to open the compartment.
3. Insert 4 AAA alkaline batteries, ensuring the correct polarity (+/-) as indicated inside the compartment.
4. Replace the battery compartment cover by sliding it upwards until it clicks into place.



Figure 4.1: Battery compartment with batteries removed, showing polarity markings.

4.2. Powering On/Off

Press the Power button () located on the front panel to turn the device ON. The LCD display will illuminate. To turn the device OFF, press the Power button again.

5. OPERATING INSTRUCTIONS

5.1. Measuring Infrared Radiation Luminance (Irradiance)

To measure the irradiance of an infrared light source:

1. Turn on the LS122 IR Power Meter.
2. Point the detector hole (located at the top of the device) directly towards the infrared light source you wish to measure.
3. The irradiance value in W/m^2 will be displayed on the LCD screen.
4. For stable readings, ensure the detector is perpendicular to the light source and held steady.



Infrared power meter is an infrared power measuring instrument, which is used for measuring the infrared radiation luminance.

Figure 5.1: Measuring infrared radiation from a light source.

5.2. Evaluating Heat-Insulating Properties (IR Rejection Rate)

The LS122 can evaluate the IR rejection rate of materials like window tints, solar films, and glass.

1. Turn on the LS122 IR Power Meter.
2. Point the detector hole towards an infrared light source (e.g., a solar lamp or the sun). Note the initial irradiance reading.
3. Press the **0%** button. The display will show "0%" for IR rejection, indicating the baseline measurement.
4. Place the material (e.g., solar film, glass) between the infrared light source and the detector hole.
5. The display will now show the IR rejection rate in percentage, indicating how much infrared radiation the material blocks.



Figure 5.2: Evaluating the IR rejection rate of a window film.

5.3. Data Hold Function

To freeze the current reading on the display, press the **HOLD** button. The "HOLD" indicator will appear on the screen. To resume live measurements, press the **HOLD** button again.

6. MAINTENANCE

6.1. Cleaning

Wipe the device exterior with a soft, dry cloth. Do not use liquid cleaners, solvents, or abrasive materials, as these can damage the casing or the detector lens.

6.2. Battery Replacement

When the battery indicator on the LCD display shows low power, replace all four AAA alkaline batteries as described in Section 4.1. Prompt battery replacement ensures accurate readings and prevents potential damage from battery leakage.

6.3. Storage

When not in use, store the LS122 IR Power Meter in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly installed batteries.	Check battery polarity and replace with fresh AAA alkaline batteries.
Inaccurate or fluctuating readings.	Low battery power; detector not properly aligned; external interference.	Replace batteries. Ensure detector is perpendicular to the light source. Minimize external light sources.
IR Rejection Rate not displaying correctly.	Baseline not set (0% button not pressed).	Ensure the 0% button is pressed to set the baseline before placing the material.
Display is blank or shows error.	Device malfunction; extreme environmental conditions.	Turn the device off and on again. If the problem persists, contact customer support. Ensure operating within specified temperature range.

8. SPECIFICATIONS

Parameter	Value
Model	LS122
Irradiance Measuring Range	0 - 40000 W/m²
Accuracy	± 10%
IR Rejection Rate	-999 - 100%
Spectral Range	1000 nm - 1700 nm
Detector Hole Diameter	Approx. 10 mm (0.39 in)
Power Supply	4 x AAA alkaline batteries (not included)
Operating Temperature	-20°C - +70°C
Dimensions (L x W x H)	Approx. 120 x 67 x 24 mm (4.7 x 2.6 x 0.9 in)
Weight	Approx. 188 g (6.6 oz)

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Walfront customer service through your original point of purchase or visit the official Walfront website. Please have your product model (LS122) and purchase details ready when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

<https://manuals.plus/asin/B084P7M6PG>

More documents and user manuals: <https://manuals.plus/>