

LIEMKE LO-SPERBER1

LIEMKE SPERBER-1 35mm Thermal Aiming Hunting Scope User Manual

Model: SPERBER-1 | LO-SPERBER1

1. INTRODUCTION

The LIEMKE SPERBER-1 thermal aiming scope represents a new standard in optical design and performance. Featuring a robust aluminum housing that emulates the classic style of a daylight optic, the SPERBER-1 seamlessly integrates into your hunting setup. This device offers an impressive detection range of 1750 meters and delivers exceptional image quality, making it suitable for diverse hunting environments, including both dense forests and open fields. This manual provides essential information for the proper use, care, and maintenance of your SPERBER-1 scope.



Figure 1.1: The LIEMKE SPERBER-1 Thermal Aiming Hunting Scope, showcasing its classic design and control turrets.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the SPERBER-1 scope. Failure to follow these guidelines may result in injury or damage to the device.

- **Eye Safety:** Never look directly at the sun or other intense light sources through the scope, as this can cause permanent eye damage.

- **Handling:** Handle the scope with care. Avoid dropping or subjecting it to severe impacts, which can damage internal components.
- **Battery Safety:** Use only the specified battery types. Do not attempt to open, puncture, or short-circuit batteries. Dispose of batteries according to local regulations.
- **Environmental Conditions:** Avoid exposing the device to extreme temperatures, high humidity, or corrosive substances.
- **Unauthorized Modifications:** Do not attempt to disassemble or modify the scope. This will void the warranty and may cause malfunction.

3. PACKAGE CONTENTS

Verify that all items are present in your SPERBER-1 package:

- LIEMKE SPERBER-1 Thermal Aiming Hunting Scope
- Integrated Rechargeable Battery
- Additional Replaceable Battery
- USB-C Charging Cable
- User Manual (this document)
- Protective Lens Caps

4. SETUP

4.1 Mounting the Scope

The SPERBER-1 is designed for easy integration with standard mounting systems, such as a Picatinny mount. Ensure the mount is securely fastened to your firearm according to the mount manufacturer's instructions. Position the scope to achieve optimal eye relief and a clear field of view.



Figure 4.1: The SPERBER-1 scope securely mounted on a rifle, demonstrating its integration with a firearm.

4.2 Battery Installation and Charging

The SPERBER-1 features an integrated rechargeable battery and includes an additional replaceable battery for extended operation. The combined battery life can reach up to 15 hours.

1. **Charging:** Connect the supplied USB-C cable to the scope's USB-C interface and to a compatible power source (e.g., wall adapter, power bank). The charging indicator will show the charging status.
2. **Replacing Battery:** Locate the battery compartment (refer to Figure 4.2). Open the compartment, insert the additional replaceable battery with correct polarity, and close securely.

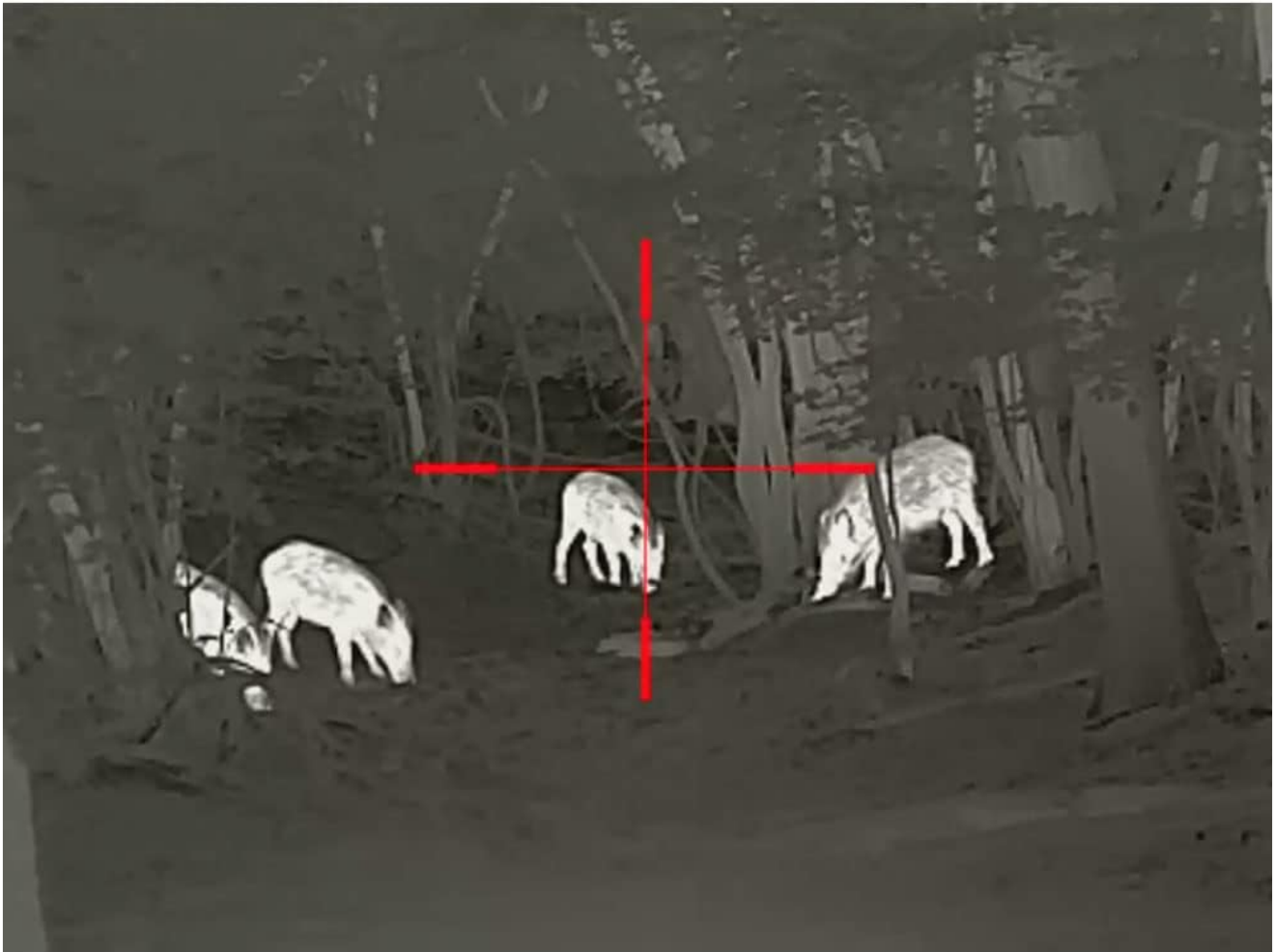


Figure 4.2: Rear-left view of the SPERBER-1, highlighting the battery compartment and the intuitive arrangement of control elements.

5. OPERATING THE SPERBER-1

5.1 Power On/Off

To power on the device, press and hold the power button located on the control panel until the display illuminates. To power off, press and hold the power button again until the display shuts down.

5.2 Basic Controls

The SPERBER-1 features an intelligent arrangement of control elements designed for intuitive use in the field. These controls allow for quick adjustments to settings such as brightness, contrast, and color palettes.

5.3 Focusing

The 35mm objective lens can be manually focused to achieve the sharpest possible image. Rotate the focus ring on the objective lens until the target appears clear and crisp in the display.

5.4 Magnification Adjustment

The SPERBER-1 offers a variable magnification range from 3x to 12x. Use the magnification control (typically a rotary knob or button) to adjust the zoom level to suit your observation needs.

5.5 Image Modes and Display

Equipped with a 384 x 288 pixel ceramic VOx detector with 12 μm pixel pitch and a 1280 x 960 LCOS color display, the SPERBER-1 delivers highly detailed image sharpness and outstanding imaging performance in real-time at a 50Hz frame rate. Various color palettes (e.g., White Hot, Black Hot, Red Hot) can be selected to optimize target detection based on

environmental conditions.



Figure 5.1: Thermal image display in 'White Hot' palette, showing target animals with a red aiming reticle.

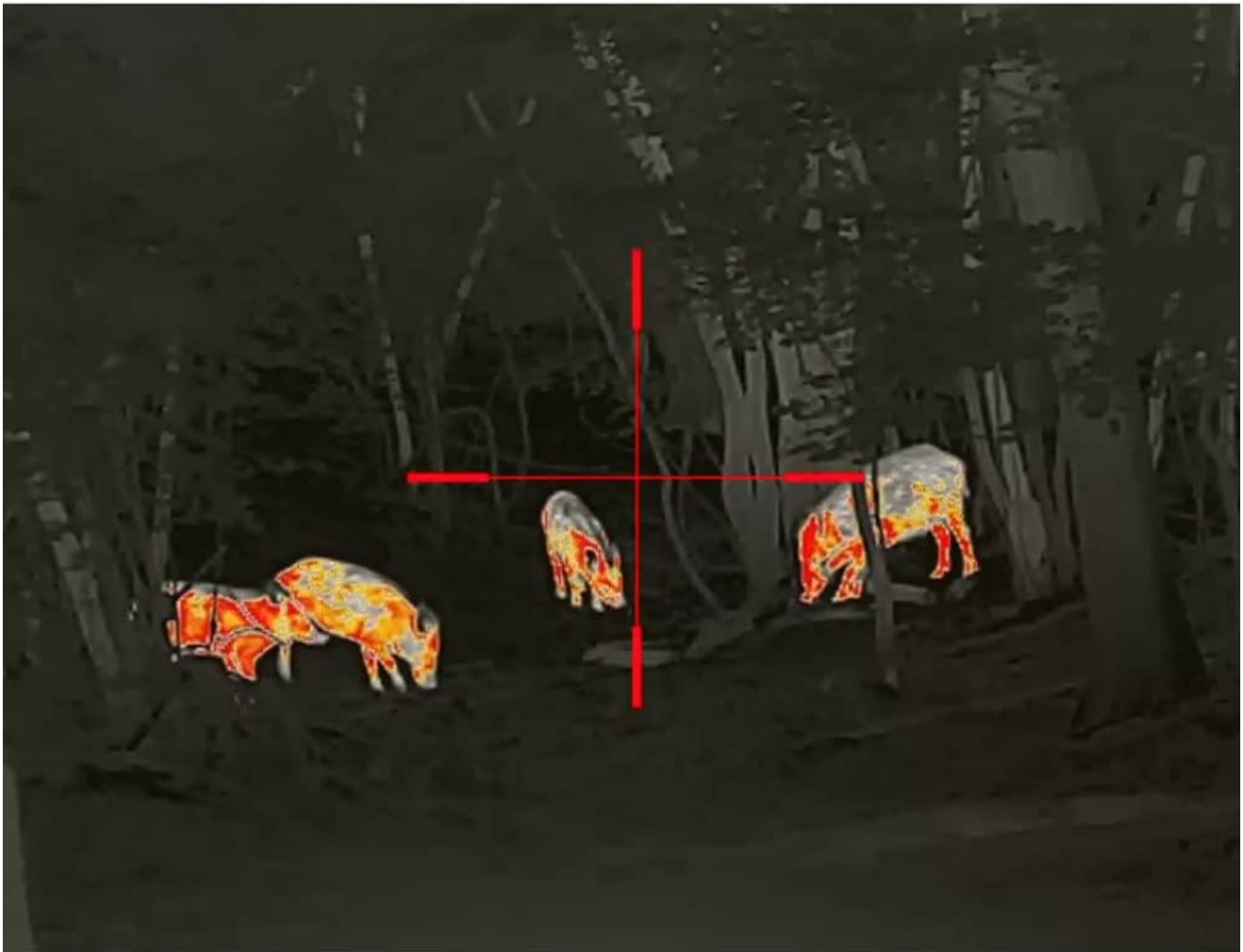


Figure 5.2: Thermal image display in a color palette, providing enhanced contrast for target identification.

5.6 Recording and Storage

The SPERBER-1 includes a 16GB internal memory, allowing you to capture images and videos of your hunting experiences. Utilize the wireless connection feature to transfer recorded data to compatible devices.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your SPERBER-1 scope.

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the lens surfaces to remove dust and smudges. For stubborn dirt, use a small amount of lens cleaning fluid applied to the cloth, not directly to the lens.
- **Cleaning Housing:** Wipe the scope's aluminum housing with a damp, soft cloth. Avoid abrasive cleaners or solvents.
- **Storage:** Store the scope in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided lens caps to protect the objective and eyepiece lenses when not in use.
- **Battery Care:** If storing for an extended period, ensure batteries are partially charged (around 50%) and remove replaceable batteries to prevent discharge or leakage.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your SPERBER-1 scope.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Device does not power on	Low or depleted battery; Incorrect battery installation	Charge the integrated battery or replace the external battery. Ensure batteries are inserted with correct polarity.
Poor image quality / Blurry image	Lens is dirty; Improper focus; Extreme environmental conditions	Clean the objective lens. Adjust the manual focus ring. Allow the device to acclimate to ambient temperature.
Controls are unresponsive	Temporary software glitch; Low battery	Restart the device. Ensure battery is sufficiently charged. If issue persists, contact customer support.
Cannot connect via wireless	Wireless function not activated; Out of range; Interference	Ensure wireless function is enabled in settings. Move closer to the connected device. Reduce potential interference sources.

8. TECHNICAL SPECIFICATIONS

Key specifications for the LIEMKE SPERBER-1 Thermal Aiming Hunting Scope:

Feature	Specification
Model Name	SPERBER-1
Objective Lens Diameter	35 Millimeters
Detector Resolution	384 x 288 pixels (Ceramic VOx)
Pixel Pitch	12 µm
Display Type	LCOS Color Display
Display Resolution	1280 x 960
Frame Rate	50Hz
Magnification	3-12x
Detection Range	1750 m
Field of View (at 100m)	13.2 m
Battery Life	Up to 15 hours (integrated + additional replaceable battery)
Charging Interface	USB-C
Internal Memory	16GB
Housing Material	Aluminum
Mounting Type	Picatinny Mount
Item Package Dimensions	17.99 x 5.16 x 4.29 inches
Package Weight	2.18 Kilograms

Feature	Specification
UPC	810496024226

9. WARRANTY AND SUPPORT

LIEMKE products are manufactured to high quality standards and are backed by a manufacturer's warranty against defects in materials and workmanship. Please refer to the warranty card included with your product or visit the official LIEMKE website for detailed warranty terms and conditions.

For technical support, service, or inquiries regarding your SPERBER-1 thermal scope, please contact LIEMKE customer service through their official channels. Provide your product model and serial number when seeking assistance to ensure efficient service.