

# LIEMKE Sperber / IRaySaim operation manual

## 1. Description

Saim/ Sperber is a low-cost thermal riflescope, which can mount on various firearms for night hunting. It is light weight, compact size and easy portability. Saim SCL works with long battery time, good concealment, under the conditions of dense smoke, dust and night.



Figure1 Parts info

## 2. Battery pack assembling



Figure2 Battery pack installation

- Open the battery bay cover anticlockwise according to the schematic diagram on the cover.
- Install the batteries as the label of battery pole in the bay as Figure2.

- After installing the batteries, cover and push the battery bay cover till hear “click” sound to ensure the both side of cover being installed correctly.

### **Special Explanation**

- Please do NOT install the different battery models or battery capacity.
- The battery models switch function is in the camera. Either 3V CR123 x2 or 3.7V CR123 x2 batteries can be installed. After installed, power on camera, please choose the battery model in the Advance Menu, otherwise the batty capacity status label will display wrong, or the camera could be shut down suddenly.
- The camera support external power supply via Type-C cable. The USB icon will be displayed on the screen after connect to external power source.

## **3. Operation**

### **A. Power on/off**

In the shutdown mode, long press Power button for 3s to start up the camera, and waiting for 6s, thermal image appears, then the device completing starting up.

In the power on mode, long press Power button for 3s, the shutdown image is displayed on the screen, select the “V” to shutdown camera.

### **B. Standby mode**

Enter/exit the standby mode with short pressing the Power button for power saving.

### **C. Diopter adjustment**

After starting up the device, rotate the eyepiece focus ring till the image clear.

### **D. Focus**

After starting up the device, rotate the focus ring to get the clear image.

### **E. Calibration**

Short press the Calibrate Key to calibrate image with shutter, press and hold Calibrate Key to calibrate image with background (with lens cover on).

### **F. Reticle display on/off**

Press and hold Power Button + Menu Key + Calibrate Key 3s to switch reticle display on/off.



When reticle is off, all menu items of reticle, as reticle color / reticle pattern of shortcut menu or zeroing / firearms type / blind pixel correction will be hidden.

### **G. Shortcut Menu**

After power on device, press the Menu key to pop-up the shortcut menu, including the

image palette, image sharpness, digital zoom, display brightness, reticle color, reticle pattern, for detail as table1.

Table1 Shortcut Menu

Press Menu Key time	Shortcut Menu	Operation
1 time	<p>Pop-up Shortcut Menu1, image palette and image sharpness</p> 	<ul style="list-style-type: none"> <li>➤ Press Power Button to switch the image palette type : white hot, black hot, iron and rainbow.</li> <li>➤ Press Calibrate Key to adjust sharpness value from 1-4, progressive enhancing.</li> </ul>
2 times	<p>Pop-up Shortcut Menu2, digital zoom and screen brightness</p> 	<ul style="list-style-type: none"> <li>➤ Press Power Button to switch the digital zoom from 1x, 2x, 3x, 4x.</li> <li>➤ Press Calibrate Key to switch screen brightness value from 1-4, progressive enhancing.</li> </ul>
3 times	<p>Pop-up Shortcut Menu3, reticle color and reticle pattern</p>	<ul style="list-style-type: none"> <li>➤ Press the Power Button to switch reticle color type: white, black, red and green.</li> <li>➤ Press the Calibrate Key to switch the reticle pattern.</li> </ul>

		
4 times	Exit Shortcut Menu	---

#### H. Advanced Menu

- After starting up the device, press and hold the Menu key to pop-up the advanced menu, as figure 3, including Ultraclear mode, bluetooth connecting, video output, PIP, battery mode, zeroing, firearms type, blind pixel correction, default settings.
- Switch the function items via pressing Power Button and Calibrate Key.
- After selecting the item of function, press Menu Key to switch the item value.



Figure3 Advanced Menu

#### I. Ultraclear Mode

In the heavy fog, rain or snow weather, Ultraclear Mode will show more image details.

#### J. Zeroing

- Before setting Zeroing, please select the zeroing type in advanced menu.

- Select the Zeroing item via up/down key, press Menu Key to pop-up Zeroing function interface as figure4.

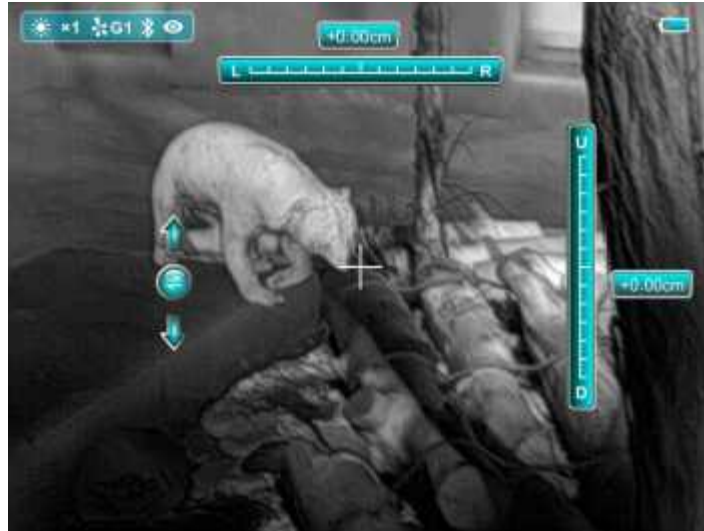


Figure 4 Zeroing function interface

- Enter the Zeroing function, aim the bull's-eye at the distance of 100m, and shoot it.
- Locate the bullet hole after shot.
- If the bullet hole can be seen in the screen of device:
  - Keep the device position, long press the Power Button and Calibrate Key to move the reticle in up/down/left/right direction, long the Key to move reticle in step of 10 pixels, which distance of 1 pixel is 2.04cm. Press the Menu Key to change the reticle moving direction, keep moving till the reticle on the position of bullet hole on screen.
  - Long press the Menu Key to save and exit.
- If the bullet hole cannot be seen in the screen of device,
  - Fixing the device position, and measure the horizontal and vertical distance between the device and bullet hole.
  - Fixing the device position, press or hold the Power Button and Calibrate Key to move the reticle in up/down/left/right direction to the measured horizontal and vertical distance, press and hold the Keys to move reticle in step of 10 pixels, which distance of 1 pixel is 2.04cm. Press the Menu Key to change the reticle

moving direction, keep moving till the reticle on the of bullet hole on screen.

- Long press the Menu Key to save and exit.

#### K. Blind pixel calibrating

- In the advance menu, press up/down key to select blind pixel calibrating item, press menu key to enter the function interface.
- In the blind pixel calibrating interface, press the Power Button and Calibrate Key to move reticle in up/down or left/right direction. Press the Menu Key to switch up/down or left/right direction.
- After selecting the blind pixel, long press the buttons (Power Button + Calibrate Key) to calibrate the blind pixel. Long press the buttons (Power Button + Calibrate Key) again to cancel the calibrated function.
- Long press the Menu Key to exit.



Figure5 Blind pixel calibrating function