ESSLNB Night Vision Monocular

ESSLNB Night Vision Monocular 5X40 User Manual

Model: Night Vision Monocular

1. Introduction

The ESSLNB Night Vision Monocular 5X40 is a versatile digital optical instrument designed for observation in both complete darkness and low-light conditions. Equipped with an infrared illuminator, it allows for clear viewing, photo capture, and video recording of subjects up to 984 feet away. This manual provides detailed instructions for the proper setup, operation, and maintenance of your device to ensure optimal performance and longevity.

2. Product Overview

2.1 Components and Controls

Familiarize yourself with the main components and controls of your ESSLNB Night Vision Monocular:

Figure 2.1: Monocular Components Diagram

This diagram illustrates the key parts of the monocular, including the objective lens, focusing wheel, infrared fill light, control buttons, battery compartment, TFT LCD screen, strap attachment point, tripod adapter, and Type-C port.

1. **Objective:** The main lens for gathering light.
2. **Objective focusing hand-wheel:** Used to adjust the focus for clear images.
3. **Infrared fill light:** Emits infrared light for viewing in darkness.
4. **Up key/Infrared light up key / electronic zoom up key:** Increases IR level or digital zoom.
5. **Down key/Infrared light down key / electronic zoom down key:** Decreases IR level or digital zoom.
6. **Photo, video, playback, function mode keys:** Buttons for selecting modes and functions.
7. **Power switch / function confirmation OK key:** Turns the device on/off and confirms selections.
8. **Battery:** Rechargeable power source.
9. **TFT LCD screen:** Displays the live view, captured images, and videos.
10. **Strap:** For secure handling.
11. **Tripod adapter:** 1/4-inch screw thread for mounting on a tripod.
12. **TF card slot:** For inserting the memory card.
13. **Typ-c:** USB Type-C port for charging and data transfer.

2.2 Included Accessories

Your package includes the following items:

Figure 2.2: Included Accessories

The image displays the packaging box, the night vision monocular, a backpack/carrying case, a tote bag, a USB output line, a charger, the rechargeable battery, a cleaning cloth, a card reader, a 32GB TF card, and the instruction manual.

- Night Vision Monocular
- Rechargeable Battery
- Carrying Bag
- USB Cable
- Charger
- Cleaning Cloth
- 16G/32G TF Card (pre-installed or included)
- Card Reader
- User Manual

3. Setup

3.1 Battery Installation and Charging

The monocular uses a rechargeable battery. Ensure it is fully charged before first use.

Figure 3.1: Battery and Charging

This image illustrates the 2200 mAh rechargeable battery, its placement in the monocular, and three charging methods: direct charging via USB, charging the battery externally with the provided charger, and charging via a power bank (not included).

1. Open the battery compartment cover.
2. Insert the provided rechargeable battery, ensuring correct polarity.
3. Close the battery compartment cover securely.
4. To charge, connect the monocular to a power source using the supplied USB cable and charger. The charging time is approximately 3.5 hours.
5. A full charge provides approximately 10 hours of work time with IR off, and 8 hours with IR on. A low battery warning will be displayed when power is critical.

3.2 TF Card Installation

A TF (Micro SD) card is required to store photos and videos. The device supports up to a 128GB TF card.

1. Locate the TF card slot (refer to Figure 2.1, component 12).
2. Gently insert the TF card into the slot until it clicks into place. Ensure the correct orientation.
3. To remove, gently push the card in, and it will spring out.

4. Operating Instructions

4.1 Power On/Off

- To power on, press and hold the **Power switch** (component 7) until the screen illuminates.
- To power off, press and hold the **Power switch** again until the screen turns off.

4.2 Focusing

Adjust the focus for a clear image:

Figure 4.1: Focusing Mechanism
This image highlights the FMC (Fully Multi-Coated) lens and the objective focusing hand-wheel, indicating how to rotate it to achieve clear focus. It also points out the infrared fill light.

- While looking through the eyepiece, rotate the **Objective focusing hand-wheel** (component 2) until the image on the TFT LCD screen appears sharp and clear.

4.3 Infrared (IR) Illumination Adjustment

The monocular features a 7-level adjustable infrared illuminator for optimal viewing in varying darkness levels.

Figure 4.2: Infrared Level Adjustment
This image demonstrates the visual difference between various infrared levels (1, 3, 5, 7), showing how higher levels provide clearer visibility in complete darkness.

- Press the **Up key/Infrared light up key** (component 4) to increase the IR level.
- Press the **Down key/Infrared light down key** (component 5) to decrease the IR level.
- Higher IR levels provide brighter images in total darkness but consume more battery.

4.4 Zoom Function

The monocular offers 2X optical magnification and up to 8X digital zoom.

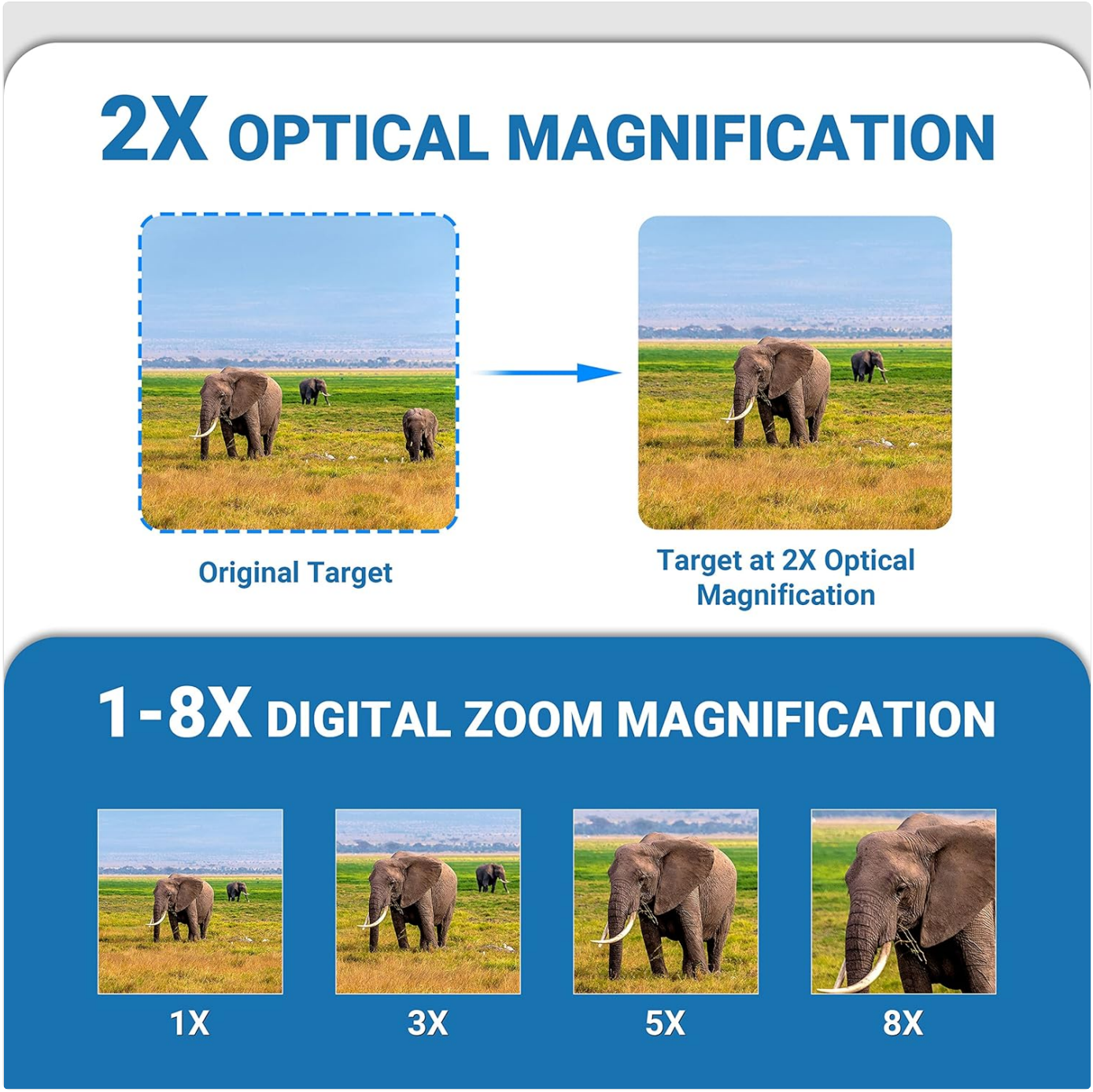


Figure 4.3: Optical and Digital Zoom

This image illustrates the effect of 2X optical magnification and various digital zoom levels (1X, 3X, 5X, 8X) on the observed target, showing increased detail with higher zoom.

- Use the **Up key/electronic zoom up key** (component 4) to increase digital zoom.
- Use the **Down key/electronic zoom down key** (component 5) to decrease digital zoom.
- Note that digital zoom may reduce image clarity at higher magnifications.

4.5 Photo and Video Recording

Capture high-quality 1080P FHD videos and photos.

Figure 4.4: Photo and Video Quality

This image displays examples of the high-quality 1080P FHD video and 720P photo output from the monocular, demonstrating clear capture of subjects.

- Press the **Mode key** (component 6) to switch between Photo mode and Video mode.
- In Photo mode, press the **Photo key** (component 6) to take a picture.
- In Video mode, press the **Video key** (component 6) to start recording. Press again to stop recording.

4.6 Playback Function

Review your captured photos and videos directly on the device.

- Press the **Playback key** (component 6) to enter playback mode.
- Use the Up/Down keys (components 4 & 5) to navigate through your files.

- Press the **OK key** (component 7) to view a photo or play a video.
- Press the Playback key again to exit playback mode.

4.7 Day and Night Use

The monocular is designed for versatile use in various lighting conditions.

Figure 4.5: Day and Night Operation

This image visually contrasts the monocular's performance during the day (color image) and at night (black and white image with IR illumination), demonstrating its ability to function effectively in both environments.

- During daytime, the monocular operates in full color without the need for infrared illumination.
- At night or in low-light conditions, activate the infrared illuminator to view subjects in black and white. Adjust the IR level as needed for clarity.

5. Maintenance

- **Cleaning the Lenses:** Use the provided cleaning cloth or a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the objective lens and eyepiece. Do not use abrasive materials or harsh chemicals.
- **Cleaning the Body:** Wipe the monocular's body with a soft, damp cloth. Avoid excessive moisture.
- **Storage:** When not in use, store the monocular in its carrying bag in a cool, dry place, away from direct sunlight and extreme temperatures. Remove the battery if storing for extended periods.
- **Battery Care:** Recharge the battery regularly, even if not in frequent use, to maintain its lifespan. Avoid fully discharging the battery.

6. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Battery is depleted or incorrectly installed.	Charge the battery fully. Ensure the battery is inserted with correct polarity.
Image is blurry.	Focus is not adjusted correctly. Lens is dirty.	Rotate the objective focusing hand-wheel until the image is clear. Clean the objective lens with a soft cloth.
Poor visibility in darkness.	IR illuminator is off or set to a low level.	Increase the IR level using the Up key. Ensure IR is enabled.
Cannot take photos/videos.	TF card is full, not inserted, or corrupted.	Check TF card storage. Reinsert TF card. Format TF card (this will erase data). Try a different TF card.
Short battery life.	Frequent use of high IR levels. Battery degradation.	Reduce IR level when not necessary. Ensure battery is fully charged. Consider replacing battery if it's old.

7. Specifications

Feature	Detail
Model Name	Night Vision Monocular
Objective Lens Diameter	25 Millimeters
Optical Magnification	2X
Digital Zoom	Up to 8X
Infrared Illuminator	3W Infrared LED, 850nm, 7 Levels Adjustable
Viewing Distance (Darkness)	Up to 984 feet (300 meters)
Viewing Distance (Daytime)	2 meters to infinity
Display Screen	1.5-inch TFT LCD
Photo Resolution	1080P FHD
Video Resolution	1080P FHD (1920*1080P)
Storage	Supports up to 128GB TF Card (32GB included)

Feature	Detail
Battery Type	Rechargeable Lithium Ion (2200 mAh)
Battery Life	Approx. 10 hours (IR off), 8 hours (IR on)
Charging Time	Approx. 3.5 hours
Item Weight	9.12 ounces
Dimensions (LxWxH)	6.3 x 2.76 x 2.17 inches
Material	Acrylonitrile Butadiene Styrene

8. Warranty Information

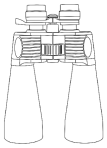
The ESSLNB Night Vision Monocular 5X40 comes with a manufacturer's warranty. Please refer to the warranty card included in your product packaging or contact ESSLNB customer support for specific details regarding warranty coverage and duration.

9. Customer Support

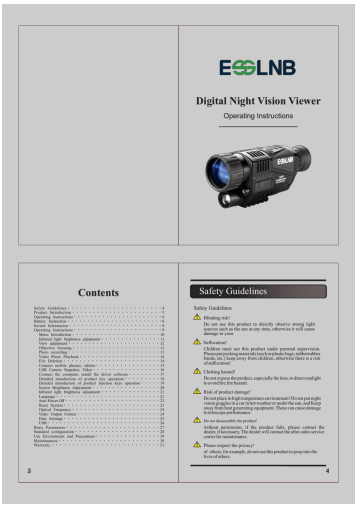
For any questions, technical assistance, or support regarding your ESSLNB Night Vision Monocular, please contact ESSLNB customer service. Contact information can typically be found on the product packaging, the official ESSLNB website, or through your point of purchase.
You may also visit the official ESSLNB Store for more information and product updates:ESSLNB Amazon Store

Related Documents

	Night Vision Monocular Specifications and Features Detailed specifications for a night vision monocular, including optical performance, imager details, image sensor, IR LED, TF card support, button functions, power specifications, video and photo resolutions, white balance, video segments, system menu options, size, weight, and package contents.
	Night Vision Monocular Specifications and Features Detailed specifications for a night vision monocular, including optical performance, video output, imager details, IR LED, TF card support, operation modes, power source, system settings, size, and package contents.

	[ESSLNB 360x70mm Astronomical Telescope Instruction Manual] Comprehensive instruction manual for the ESSLNB 360x70mm astronomical telescope, covering assembly, usage, finderscope adjustment, specifications, and care.
	[ESSLNB 13-39x70 Zoom Binoculars User Guide] A comprehensive guide on how to use and care for your ESSLNB 13-39x70 Zoom Binoculars, including instructions for IPD adjustment, focusing, lens care, and phone adapter installation.

Documents - ESSLNB – Night Vision Monocular



[ESLNB Digital Night Vision Viewer Operating Instructions]
Comprehensive operating instructions for the ESLNB Digital Night Vision Viewer, covering product introduction, safety guidelines, operating instructions, menu functions, basic parameters, standard configuration, usage precautions, maintenance, and warranty information.
lang:en score:19 filesize: 2.15 M page_count: 8 document date: 2022-09-27