BUUBO NV8160

BUUBO NV8160 Head-Mounted Night Vision Goggles

1080P HD Infrared Binoculars User Manual
Model: NV8160 | Brand: BUUBO

1. INTRODUCTION

Thank you for choosing the BUUBO NV8160 Night Vision Goggles. This device is designed for enhanced observation in low-light and complete darkness conditions, offering advanced infrared technology, digital zoom, and recording capabilities. Please read this manual thoroughly before operating the device to ensure proper use and to maximize its performance and longevity.

2. SAFETY INFORMATION

- Do not expose the device to direct sunlight for extended periods, as this may damage internal components, especially the image sensor.
- Keep the device away from extreme temperatures, humidity, and dust.
- Avoid dropping or subjecting the device to strong impacts.
- Do not attempt to disassemble or repair the device yourself. Refer to qualified service personnel.
- Ensure the device is powered off when not in use and stored in a safe place.
- Use only recommended accessories and power sources.

3. PACKAGE CONTENTS

Please check the package for the following items:

- BUUBO NV8160 Night Vision Goggles
- Head Strap Mount
- USB Type-C Cable
- User Manual
- Cleaning Cloth

4. DEVICE OVERVIEW

Familiarize yourself with the main components and controls of your NV8160 Night Vision Goggles.

Figure 4.1: Top view of the NV8160 device, highlighting the control panel with buttons for IR adjustment, power, menu, mode, record/photo, and OK.

Figure 4.2: Angled front view of the NV8160, illustrating the objective lenses for light collection and the eyepiece for viewing.

Figure 4.3: The NV8160 device shown with its head strap accessory, demonstrating its head-mounted configuration and the internal display showing an observed image.

Control Buttons:

- **IR Up/Down (▲/▼ IR):** Adjusts infrared illumination level.
- **Power ( ):** Turns the device on/off.
- **Menu (MENU):** Accesses the device settings menu.
- **Mode (MODE):** Switches between Photo, Video, and Playback modes.
- **Record/Photo (●/■):** Initiates video recording or takes a photo.
- **OK (OK):** Confirms selections in the menu or during playback.

5. Setup

5.1. Installing the Memory Card

The NV8160 requires a TF (microSD) card for storing photos and videos. The device supports cards up to 32GB.

1. Locate the memory card slot, typically on the side or bottom of the device, protected by a rubber cover.

2. Open the cover and gently insert the TF card with the gold contacts facing down (or as indicated by a diagram near the slot) until it clicks into place.

3. Close the rubber cover to protect the slot from dust and moisture.

5.2. Charging the Device

Before first use, fully charge the device. The NV8160 uses a built-in rechargeable battery.

1. Connect the supplied USB Type-C cable to the device's charging port.

2. Connect the other end of the cable to a standard USB power adapter (not included) or a computer's USB port.

3. The charging indicator (if present) will illuminate during charging and turn off or change color when fully charged.

5.3. Attaching the Head Strap

For hands-free operation, attach the head strap mount.

1. Align the mounting screw on the head strap bracket with the tripod screw hole on the top of the NV8160 device.

2. Securely fasten the device to the bracket by turning the screw clockwise.

3. Adjust the straps to comfortably fit your head, ensuring the device is stable and positioned correctly for viewing.

Figure 5.1: The NV8160 mounted on the head strap, ready for hands-free use.

6. OPERATING INSTRUCTIONS

6.1. Power On/Off

- **To Power On:** Press and hold the Power ( ) button for a few seconds until the screen illuminates.
- **To Power Off:** Press and hold the Power ( ) button again until the screen turns off. The device also features an auto-power-off function (default 1 minute) to conserve battery.

6.2. Adjusting Infrared (IR) Illumination

The NV8160 features a powerful 3W 850nm infrared illuminator with 7 adjustable brightness levels.

- In observation mode, press the **IR Up (▲ IR)** button to increase IR brightness.
- Press the **IR Down (▼ IR)** button to decrease IR brightness.
- Adjust the IR level based on ambient light conditions for optimal visibility. Higher IR levels consume more battery.

6.3. Zoom Control

The device offers 10x optical magnification and 8x digital zoom, for a total magnification of up to 80x.

- While observing, use the **IR Up (▲ IR)** button to zoom in digitally.
- Use the **IR Down (▼ IR)** button to zoom out digitally.

6.4. Mode Selection

Press the **MODE** button to cycle through the available modes:

- **Photo Mode:** For capturing still images.
- **Video Mode:** For recording video footage.
- **Playback Mode:** For reviewing captured photos and videos.

6.5. Capturing Photos and Videos

- **Taking a Photo:** In Photo Mode, frame your subject and press the **Record/Photo (●/■)** button once to take a picture.
- **Recording a Video:** In Video Mode, press the **Record/Photo (●/■)** button once to start recording. Press it again to stop recording.

6.6. Menu Settings

Press the **MENU** button to access settings. Use the IR Up/Down buttons to navigate and the OK button to select.

- **Language:** Select from 12 available languages.
- **Date/Time:** Set the current date and time. This will be stamped on your recordings.
- **Color Effects:** Choose from Color, Black & White, Moonlight Green, or Film Negative.
- **Resolution:** Adjust photo and video resolution settings.
- **Auto Power Off:** Set the inactivity time before the device automatically shuts down.
- **Format Card:** Format the inserted TF card (this will erase all data).

7. MAINTENANCE

7.1. Cleaning

- **Lenses:** Use the provided cleaning cloth or a soft, lint-free cloth specifically designed for optics. Gently wipe the lenses to remove dust or smudges. Do not use abrasive materials or harsh chemicals.
- **Body:** Wipe the device body with a soft, damp cloth. Avoid getting water into ports or openings.

7.2. Storage

- Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.
- If storing for an extended period, ensure the battery is partially charged (around 50%) and recharge it every few months to maintain battery health.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low battery.	Charge the device fully.

Problem	Possible Cause	Solution
	Power button not held long enough.	Press and hold the Power button for 3-5 seconds.
Poor image quality / blurry view.	Lenses are dirty.	Clean the objective and eyepiece lenses with a soft cloth.
	Insufficient IR illumination.	Increase the IR brightness level.
Cannot record photos/videos.	No TF card inserted or card is full.	Insert a TF card or delete old files/format the card.
	TF card error.	Try formatting the card via the menu or use a different TF card.
Screen freezes or device is unresponsive.	Temporary software glitch.	Press and hold the Power button for 10 seconds to force a shutdown, then restart.

9. SPECIFICATIONS

Feature	Specification
Model	NV8160
Night Vision Range (Full Darkness)	Approx. 300-400 meters
Low Light Vision Range	3 meters to infinity
Infrared Illuminator	3W, 850nm, 7-speed adjustable
Display Screen	2.7-inch 640*480 TFT LCD
Ocular Magnifier	6.5x (equivalent to 17.5-inch screen view)
Color Effects	Color, Black & White, Moonlight Green, Film Negative
Photo Resolution	12M (4000x3000), 8M (3264x2488), 5M (2592x1944), 3M (2048x1536), 2M (1600x1200), 1.3M (1280x960), VGA (640x480)
Video Resolution	1080P (1440x1080@30FPS), 960P (1280x960@30FPS), VGA (640x480@30FPS)
Lens	F1.0, f=35mm, FOV=8.5°, 25mm
Optical Magnification	10x
Digital Zoom	8x
Sensor	1.3 Million Pixel Starlight Level CMOS
Storage Media	TF card, up to 32GB
USB Port	Type-C
Auto Power Off	1 minute (adjustable)

Feature	Specification
Water Resistance	IP54
Weight	500 Grams
Dimensions (Package)	1 x 1 x 1 cm (approximate)

10. WARRANTY AND SUPPORT

BUUBO products are manufactured to high-quality standards. For warranty information, please refer to the specific terms provided at the point of purchase or contact your retailer. If you encounter any issues not covered in this manual or require technical assistance, please contact BUUBO customer support through the official website or your authorized dealer.