



NITEVIZOR® OWL-XTR



USER MANUAL

NITEVIZOR OWL-XTR

Thank you for choosing the NITEVIZOR OWL-XTR. Please read the user manual carefully before using your new device.

Important Safety Information

1. Never look directly at the IR fill light when illuminated.
2. Do not leave the product un-supervised with persons under the age of 16.
3. Do not aim the IR fill light at combustible objects at close range.
4. Turn off the IR fill light or adjust it to sleep mode if it will not be used for a period of time.
5. Never leave on charge unattended.

Contents

- OWL-XTR Digital Rifle Scope
- 850nm IR Illuminator
- Universal Joint Mount
- IR Illuminator Mount
- Rubber Eye Piece
- Sunshade
- Charging Cable
- Bluetooth Remote Control
- TF Card
- Card Reader
- Carry Bag
- Cleaning Cloth
- Allen Key
- 3x 18650 Rechargeable Batteries





Initial Setup

Charging the Rifle Scope

The rifle scope is equipped with a USB Type C port which is located under the rubber cap on the right side of the rifle scope. Plug the included USB Type C cable into a USB wall charger that has an output of 2 amps.

The rifle scope can be charged while it is powered On or Off, but it charges faster in when powered Off. When in Recording Mode, the rifle scope will be powered, but not charged.

Note: Using a wall charger with lower amperage will take longer to charge the rifle scope.

1. Recommended charger is 2.0A USB charger
2. Battery charging time (from 0 to 100%) is 2 hours using a 2.0A USB charger with the rifle scope powered Off
3. Battery run time is 6 hours on a single charge

MicroSD & USB C Ports

The rifle scope is equipped with a microSD Card and USB (type C) ports. You can find them under the rubber caps on the right side of the rifle scope.

To open the rubber port cover, gently lift the rubber cover and move it out of the way.

Note: Make sure that the device is powered Off before inserting the formatted microSD Card into its port.

1. Always format a new microSD card before using
2. Insert the MicroSD card as shown
3. Use a thin object (small coin, paper clip) to fully insert and lock the MicroSD in place in the slot
4. Close the rubber the cover

Note: There is only one correct direction to insert the MicroSD card. Do not force the microSD card into the slot as doing so may cause damage to both the rifle scope and the MicroSD card.



...MicroSD & USB C Ports

To remove the MicroSD Card from the port, push the card slightly in using the same thin object that was used to insert it. When the MicroSD card pops up a few millimeters, the card can be removed with finger tips or tweezers.

Note: The rifle scope requires a high quality TF card for recording 4K HD video. We advise to use a minimum specification of U3-V30 with 64GB or higher. The rifle scope supports cards up to 256GB capacity.



Controls

Full Power Off

The rifle scope can be fully powered off by holding the P.OFF button for 3 seconds. The rifle scope will be fully disconnected from the power supply. Use Full Power Off when storing the rifle scope for longer periods when not in use.

Microphone

The rifle scope's Microphone is located to the right of the P.OFF button. The Microphone should be clean and unencumbered for optimal performance.

ON/OFF

The rifle scope can be switched On and Off using the On/Off button. Hold the On/Off button for 3 seconds to either switch On or Off.

If the rifle scope fails to start using the On/Off button press the P.OFF button for 1 second, then pressing the On/Off button for 3 seconds.

Photo & Video Recording

Press the Photo/Video button for 1 second to switch between Photo and Video modes. Press the Photo/Video button briefly to take a photo or start/stop Video recording.

... Controls

Exit/Rangefinder

The Exit/Rangefinder button has multiple functions.

In the Menu/Settings interface, press the Exit/Rangefinder button briefly to navigate Up/Back through the menu and back to rifle scope mode.

In rifle scope mode, press the Exit/Rangefinder button to activate and deactivate the Rangefinder and Ballistic Calculator. When activated, use the Scroll Wheel to measure the distance using the Rangefinder ranging rule.

Scroll Wheel

In rifle scope mode the Scroll Wheel operates the Zoom by rotating to the left or right. Press briefly the Scroll wheel to enter the Menu/Settings interface. In the Menu/Settings interface use the Scroll Wheel to select and confirm settings.

Optical Adjustment

Diopter Adjustment

Rotate the Diopter Adjustment Ring to focus the eyepiece. Look through the eyepiece while focusing on the reticle and widgets on the screen, until the screen is sharp.

Distance Focus

Rotate the Distance Focus Ring to achieve the correct focus in relation to the distance of the target.

Mounting

The rifle scope can be mounted using 30mm mounting rings. Apply equal torque to all screws with the supplied Allen key.

Ensure the mounting rings are securely tightened to the correct torque settings.

To mount the rifle scope on a Picatinny rail:

1. Loosen the fixing screws on the sides of the mounting rings
2. Place the rifle scope on the Picatinny rail so that the projection of the rail, which is in the base of the ring, enters the recess in the rail
3. Tighten the mounting ring screws



...Mounting

Caution: Before mounting, ensure the firearm is not loaded. Always use safe weapon handling procedures.

Note: Please do not overtighten the mounting ring screws as this could damage the rifle scope. We recommend torque settings of 30in-lbs.



IR850 Infra-Red Illuminator

Note: Please hold the battery tube (not the flashlight head or neck) when tightening/loosening the tail-cap.

The IR850 IR Illuminator is powered by 1x 18650 rechargeable battery.

1. Remove the tail cap unscrewing it until it is free of the body
2. Install the battery in the body, observing battery polarity
3. Install the tail cap back on the body

Modes

The IR850 IR Illuminator can be used on full power continuously for 2 hours.

Operation

Press the button on the tail to turn it On. Press the button again to turn Off.

Spot Adjustment

Turn on the light and shine it on wall 8 to 10 meters away. To focus the beam, hold the head with one hand and rotate the neck clockwise or counterclockwise with the other hand to focus the beam.

Installation

Install the IR Illuminator on the adjustable base as follows:

1. Unscrew four screws
2. Place the IR Illuminator in the installation seat
3. Replace the screws and tighten

...IR850 Infra-Red Illuminator

In order to make the spot area of IR Illuminator coincide with the observation range of the rifle scope, it is assembled into the mounting seat. Place it on the side accessory slide rail of the rifle scope. After securely installing, loosen the two screws at the top of the mounting ring slightly. Turn on the IR Illuminator and the rifle scope, and set the rifle scope in night mode to view the IR beam. Move the infrared compensation flashlight in the installation seat until the whole spot of the IR beam is visible in the rifle scope screen, and then adjust, so that the spot and the display screen are synchronized. Use the hexagon wrench to gently tighten the two screws at the top of the mounting ring to secure the IR Illuminator.

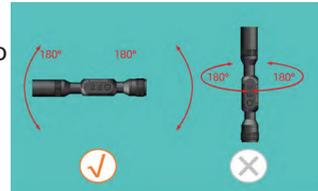
Note: To prevent wear and maintain water resistance, regularly lubricate threads and O-rings.

Compass Calibration

In different areas, the compass needs to be calibrated. The calibration of the compass can be divided into Azimuth Calibration and Incline Calibration.

In the Menu/Settings interface, select More, then select Compass line then select Compass. Follow the instructions as indicated on the image displayed.

Rotate 3-4 times in each direction, and place the equipment at rest horizontal to the ground or other horizontal surface. Then wait for about 30 seconds, and a success screen appears. If the calibration fails, repeat the calibration procedure again.



To calibrate the Incline, select More in then select Compass, change to Incline and select. The Incline will then be calibrated.

If either of the calibration procedures fails, please repeat the above steps.

Bluetooth Remote Control

Photo and Video recording, along with the ZOOM level can all be controlled via the Bluetooth Remote Control.

1. Switch on the rifle scope, enter the Menu/Settings interface and choose the BT. Press the Scroll Wheel and 'Bluetooth Pairing...' will be displayed
2. Press any button on the remote control. The indicator will display green if successfully paired. If pairing has failed and the indicator is red, repeat step 1
3. Wait approximately 10 seconds for the remote control to be operational

...Bluetooth Remote Control

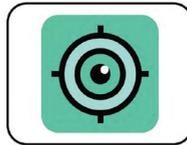
Press the PHOTO/VIDEO button to take a photo in Photo Mode or to record video in Video mode. Use the Photo/Video button directly on the rifle scope to change between Photo and Video modes.

To adjust the ZOOM press the Plus or Minus buttons to zoom in or out.

Application for Android and iOS

The APP for the rifle scope is available for Android and iOS devices. Please check www.nitevizor.com for the latest download links.

Once installed, you the following icon will appear on the device:



Connecting to the APP

Turn on the WIFI setting of your Android or iOS device and select the 'rifle-scope-xxxxx' WIFI option. The initial password is: 88888888. Once connected you can change the password via the device. If you forget the password, reset to 88888888 in the rifle scope Settings.

Once successfully connected via WIFI, click the APP icon on your device. The APP will launch and then select 'Connect'.

If 'Connect' does not display, or the APP fails to connect, please restart the rifle scope and repeat the steps above.

Note: If the scope was recording before entering the APP, real-time video will not be displayed. Stop recording on the rifle scope and real-time video will be displayed.

Operating the OWL-XTR Rifle Scope

Home Screen

When the rifle scope is switched on, the Home Screen will be displayed, comprising the real-time video image, a status bar at the bottom and additional information at the top of the screen.



- | | |
|-----------------------|---|
| 1. Pitch Angle | 6. Battery Information |
| 2. Electronic Compass | 7. Electronic Magnification Value |
| 3. TF Card Status | 8. Photo / Video / Vibration Video Status |
| 4. WiFi Status | 9. Resolution Setting |
| 5. Bluetooth Status | |

Menu/Settings Interface

Use the Scroll Wheel to enter the Menu/Settings Interface to adjust settings and options.

COR (Crosshair Calibration):

Step 1: Aim the crosshairs at the target and shoot.

Step 2: Re-aim the crosshair at the target, enter the menu, and select the the COR option

Step 3: Click the Scroll Wheel, and rotate it, choosing COR. The fixed white crosshair refers to the center of the screen. If entering this selection for the first time, a red crosshair in the center of the screen will also be visible, which overlaps with the white crosshair. 8X=0 8Y= 0 will be displayed which are the current coordinate values.

Step 4: Rotate the Scroll Wheel, to adjust the position of the white crosshair. Move the center point of the white cross hair to the ballistic point. Push the Scroll Wheel to switch between X-axis and Y-axis.

...COR (Crosshair Calibration):

Step 5: After adjusting the center of the white crosshair to the ballistic point, press the Exit/Rangefinder button to save the crosshair setting, then rotate the Scroll Wheel and select the preset number to be used. Press the Exit/Rangefinder button again to confirm the setting. Select the X preset number to discard the current adjustments.

COO (Coordination)

Up to 4 different crosshair calibration positions can be saved for use in different environments.

Select the COO option using the Scroll Wheel then press the Scroll Wheel to select the desired configuration.

TYPE (Reticle Style Adjustment)

The rifle scope supports any combination of four colors and eight reticles. Select the Type option in the by using the Scroll Wheel then rotate to select the desired reticle.

Press the Scroll Wheel to enter the color palette selection. Turn the Scroll Wheel to select the color, then press the Exit/Rangefinder button to save.

BA (Ballistic Calculator)

Using the Scroll Wheel, enter the Menu/Settings and select BA. To select an option to modify, press the Scroll Wheel, turn to select the value, then press the Scroll Wheel to save.

Note: The Distance value is automatically calculated by the system. The remaining values, except the defaults, can be modified.

REF (Ranging Reference Settings)

Select the REF option using the Scroll Wheel. Scroll and select the target type.

To modify the height of a target, press the Scroll Wheel for 3 seconds. A red line will appear below the value. Rotate the Scroll Wheel to set the height then press the Exit/Rangefinder button to save the setting.

...Menu/Settings Interface

A-REC (Automatic Recording)

A-REC mode enables video recording to be started when the trigger of the fire-arm is pulled.

Rotate the Scroll Wheel and select A-REC.

Press the Scroll Wheel for 3 seconds to enter revision mode, then rotate to select the desired value.

'Before Fire' is the time before pulling the trigger, 'After Fire' is the time after pulling the trigger.

Note: The time before pulling the trigger is limited and cannot be infinite. The accurate time is related to the resolution – higher resolution will be achieved with a lower A-REC bracket.

WIFI

Select the WIFI option using the Scroll Wheel and press to switch WiFi On/Off.

BT (Bluetooth)

Rotate the Scroll Wheel and select the BT option, and press to switch the Bluetooth On/Off.

DAY & NIGHT (Day & Night Mode Switches)

Select Day or Night mode by pressing the Scroll Wheel.

Day mode offers a full color image and recording. The Night mode setting switches to a monochrome image for use with a IR (Infra-Red) Illuminator.

LUM (Luminance)

Rotate the Scroll Wheel to select the LUM option, then press and rotate the wheel to change the luminance (brightness) value.

CON (Image Contrast)

Rotate the Scroll Wheel and select the CON option to adjust the image contrast.

ZOOM (Zoom Level)

Select the ZOOM option using the Scroll Wheel, then rotate to adjust the Zoom level.

...Menu/Settings Interface

RESO (Video Resolution)

The Video Resolution can be adjusted by using the Scroll Wheel to select the RES option, the rotating to select the desired video resolution.

PB (Playback)

Rotate the Scroll Wheel to select the PB option, then rotate to select either Video or Photo playback, then press the Scroll Wheel to select.

Use the Scroll Wheel to select the Video or Photo and press to view.

In Video Playback mode, use the rotate the Scroll Wheel to adjust playback speed.

T -SET (Time Setting)

Select the T-SET option and use the Scroll Wheel to adjust the time and date of the rifle scope.

FORMAT (TF Card Format)

Rotate the Scroll Wheel to select FORMAT option.

A prompt will appear to confirm the Formatting of the TF Card. Rotate to select Yes, then press again. A second confirmation will appear before Formatting starts.

Note: Formatting the TF card will erase all data, photos and videos.

More (More Options)

Rotate the Scroll Wheel and select the MORE. Scroll through the settings and adjust accordingly using the Scroll Wheel.

Technical Specification

- Field of View @1000 yds: 250ft(4.8°)
- Sensor: Sony 4K Sensor I 3840 (H) X 2160 (V)
- CPU: 14nm Quad-Core Processer
- Display Resolution: 1280x720 HD Display
- Eye Relief: 60mm
- Video Resolution: 4k@30/60fps, 1080p@ 30/60/120/200fps, 720p@200fps
- Crosshair Size: 1.0-13.0MOA
- Battery Life: Up to 6hrs
- Battery Type: Internal Lithium Ion Battery
- Dimensions: 325x126x49mm
- Weight: 884g
- Warranty 2 years
- Conformity: CE, FCC, RoHs

Important Usage Information

- Please install batteries according to the advised polarity.
- Please use good quality batteries and remove the batteries when the device will not be used for longer than a few weeks.
- It is recommended to format the Micro SD-card which will be used for the device before using for the first time.
- Keep the device away from any heating and air conditioning vents or other heating devices, direct sunlight, and moisture.
- Always store the unit in its carrying case in a dry, well ventilated, space in temperature above +15°C (60°F). Do not store near heating devices. Do not store in direct sunlight or high humidity conditions (higher than 70%).

NOTE: The OWL-XTR is a precision electronic device. Do not attempt to service this camera, LCR or IR illuminator yourself, as opening or removing covers may expose you to dangerous voltage points or other risks.

FCC NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

Specifications and designs are subject to change without any notice or obligation on the part of the manufacturer.



Disposal of Electric and Electronic Equipment

(Applicable in the EU and other European countries with separate collection systems)

This equipment contains electric and/or electronic parts and must therefore not be disposed of as normal household waste. Instead, it should be disposed at the respective collection points for recycling provided by the communities. For you, this is free of charge.

If the equipment contains exchangeable (rechargeable) batteries, these too must be removed before and, if necessary, in turn be disposed of according to the relevant regulations (see also the respective comments in this unit's instructions). Further information about the subject is available at your community administration, your local waste collection company, or in the store where you purchased this equipment.





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