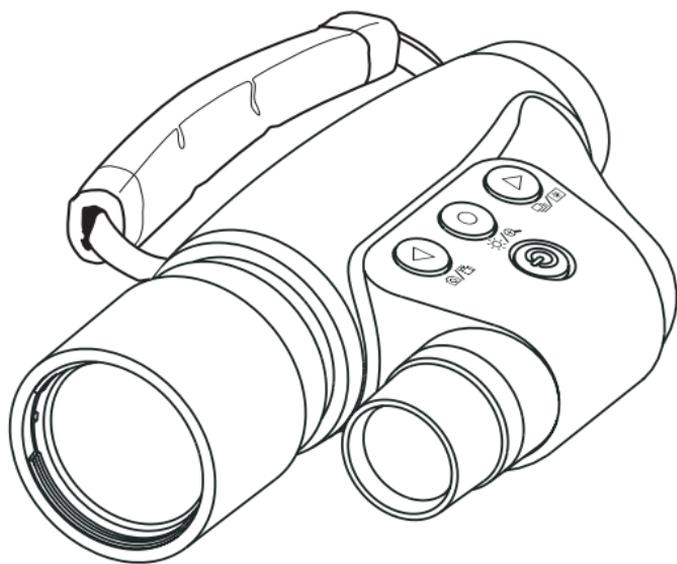


***Night Owl Optics***<sup>®</sup>

**NIGHT SCOPE  
NOXM50-DG**

**Digital Night Vision  
with Picture and Video Recording**  
Owner's Manual



## CONTENTS

<b>BEFORE USE</b>	3	Frame Rate	14
Care and Maintenance	3	Screen Brightness	15
Warning	3	Digital Zoom	15
Introduction	4	Capturing Image	16
		Recording Video	16
		Turning Off the Power	17
<b>PRODUCT AT A GLANCE</b>	4	Infrared Intensity and Battery Consumption	17
Package Contents	4		
Product Overview	5	<b>PLAYBACK AND SYSTEM SETTINGS</b>	18
Specifications	6	Scrolling the Menu With the Buttons	18
Status Icon	7	Playing Back the Image	19
Quick Start Guide	8	Playing Back the Video	20
		Setting Date and Time	21
<b>GETTING STARTED</b>	10	Selecting the Display Language	22
Installing the Batteries	10		
Installing the MicroSD Card	11		
Removing the MicroSD Card	11		
Memory Card and USB Connection	12		
<b>BASICS</b>	13		
Turning On the Power	13		
Focusing the Eyepiece	13		
Focusing the Objective	13		
Adjusting the Infrared Intensity	14		

## BEFORE USE

Please read this instruction manual carefully before using this device, and retain it for future reference.

### Care and Maintenance

- Avoid shock and dropping the device.
- Keep the device dry and protect it from water or humidity.
- Do not leave your device in a place with extreme high or low temperature.
- Do not expose or store the device in dusty, dirty areas. This may cause damage to its moving parts.
- Do not use harsh chemicals, cleaning solvents or strong detergents to clean the device. Wipe it with a clean soft cloth.
- Blow away any dust and particles on the lenses and window. Clean these only with a moistened, soft, lint-free cloth.

### Warning

- Do not aim the device at the sun as this may damage the image sensor.
- Do not leave batteries installed during extended periods of disuse.
- Do not mix new and old batteries or different types of batteries.
- It is normal for this device to get warm when using for a prolonged period of time.
- Do not insert batteries in reversed polarities when not in use.

## Introduction

- The Night Scope allows you to view objects and capture still and video images in the dark. The high intensity beam of infrared enables visibility in complete darkness. It can be used in day and at night delivering black and white images. The adjustable frame rate and infrared intensity features, plus the 2x digital zoom, provide viewing in all types of nighttime and low-light environments.
- Familiarize yourself with the night vision monocular before using it. Read the manual and follow the instructions.

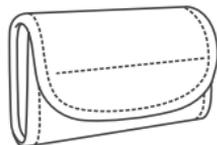
## PRODUCT AT A GLANCE

### Package Contents

Night Scope



Pouch



User's Manual



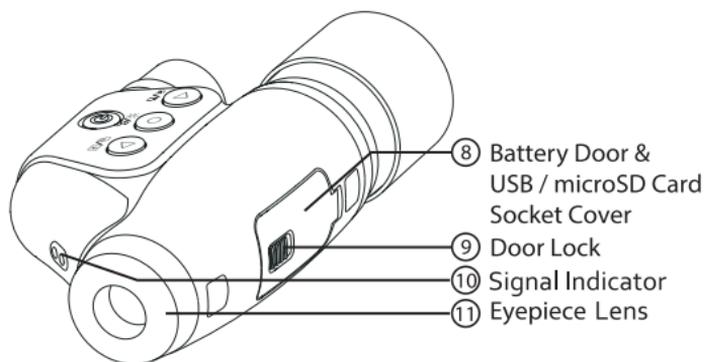
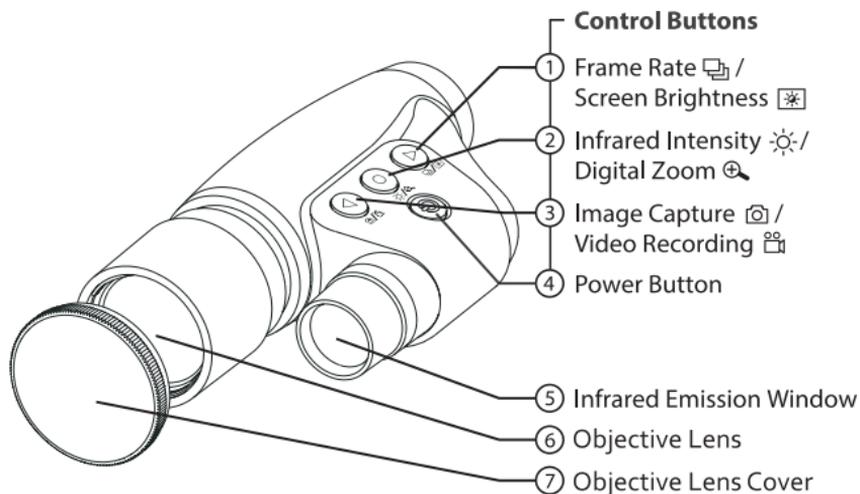
USB Cable



MicroSD Card  
w/Adapter



## Product Overview

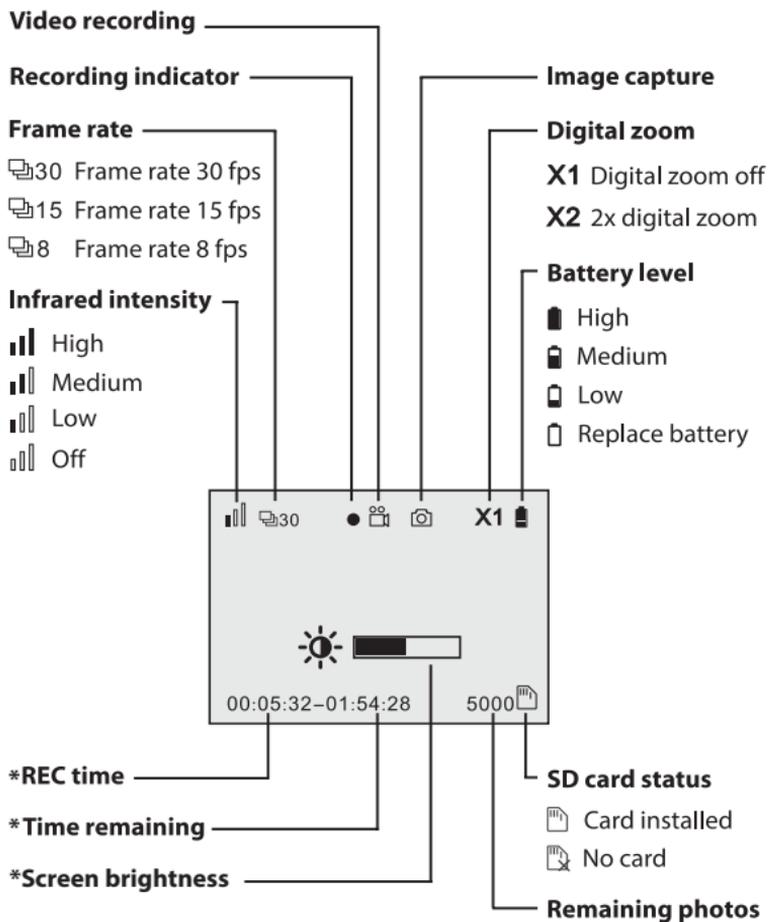


## SPECIFICATIONS

<b>SCOPE</b>	Dimensions	6.7 x 3.6 x 1.9 inch			
	Weight	10.6 oz (w/o Batteries)			
	FOV, ° Horizontal	7.2 °			
	IR	3 levels			
	Brightness	2 levels			
	Operational voltage	3.9V - 8.5V			
<b>OBJECTIVE</b>	Construction	4 Element (2 Glass, 2 Aspherical plastic)			
	Focal Length	38mm / 1.5 inch			
	Aperture	38mm / 1.5-inch dia., F: 1.0			
	Focusing distance	3m / 9.8 feet to infinity			
<b>EYEPIECE</b>	Construction	3 Element (3 Aspheric plastic)			
	Entrance Pupil	7.0mm / 0.28 inch			
	Diopter Adjustment	+2D ~ -4D			
<b>ILLUMINATION</b>	IR LED	1W			
	Collimator	Collimated to 9 deg.			
<b>INFRARED RANGE</b>	IR Wavelength, nm	850nm			
<b>MICROSD CARD SLOT</b>	Memory Card	MicroSD			
	Video Size	30MB/minute			
	Picture Size	20KB			
<b>SENSOR</b>	Type	1/3" Color CMOS Digital Image Sensor			
	Resolution	640 x 480 pixels (VGA)			
	Effective Spectral Range	400nm to 990nm			
	Frame Rate	8/15/30 fps			
<b>ELECTRONIC VIEWING SYSTEM</b>	Micro-Display	0.21" Active Matrix LCD			
	Resolution	640 x 480 x 3 Pixels			
<b>MAGNIFICATION</b>		3X			
<b>ZOOM</b>	Digital Zoom	2X (either 3X standard or 6X w/2X digital zoom)			
<b>BATTERY</b>	CR123A	x 2			
<b>OPERATION TIME</b>	150mins (with two CR123A)				
	This is the duration when the unit is at the High IR setting, the High IR settings will then turn to Medium, then Low, then IR OFF depending on the battery level. The time at each level is shown below in minutes:				
	High	Medium	Low	IR OFF	Total
	140	5	2	3	150
<b>OPERATING TEMPERATURE</b>	0°C to 40°C				
<b>STORAGE TEMPERATURE</b>	-15°C to 50°C (w/o Batteries)				

\* MicroSD card included

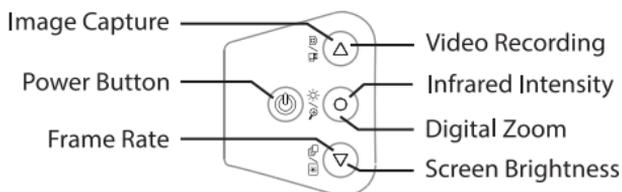
## Status Icon



\* Icon active when feature engaged.

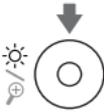
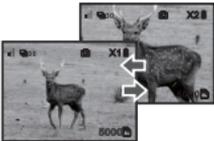
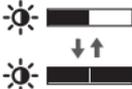
## Quick Start Guide

### Control Button Functions



### Operating Instructions

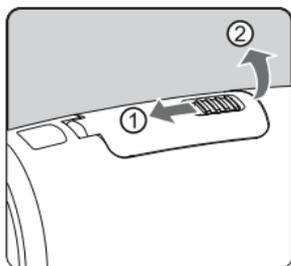
Function	Control Button	Description	Display
On/Off		Press and hold <⏻> for 2 seconds to turn power on or off.  The device will enter sleep mode after 5 minutes of non-operation (except on video recording mode).	
Focusing		Adjust the eyepiece ① until the icons on the screen are clear, then adjust the objective ② until your target is clear.	
Image capture		Press <📷> to capture image.	

Function	Control Button	Description	Display
Video recording		Press and hold <△> for 2 seconds to start recording. You will see [ ● ] on the screen.  Press <△> again to stop recording. The Night Scope will start a new file every 10 minutes.	
Infrared intensity		Press <☉> to adjust the IR intensity.	Low Medium High Off 
Digital zoom		Press and hold <☉> for 2 seconds to trigger 2x digital zoom. Press for 2 seconds to resume.	
Frame rate		Press <▽> to adjust frame rate.	30 → 15 → 8 
Screen brightness		Press and hold <▽> to switch between high or low brightness. Release to confirm.	

Before using the Night Scope, make sure the batteries and microSD card are installed properly.

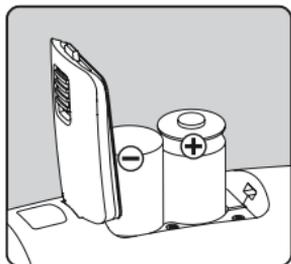
## GETTING STARTED

### Installing the Batteries



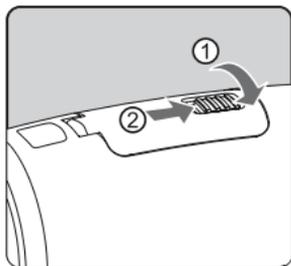
#### **Open the battery door**

Open the battery door by sliding the door lock in the direction as shown by the arrow.



#### **Insert batteries**

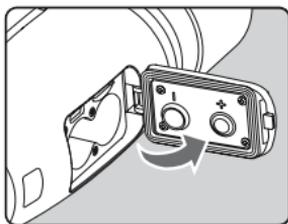
Insert 2 CR123A batteries into the battery compartment in their correct polarity positions.



#### **Close the battery door**

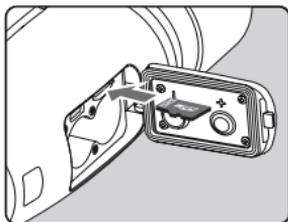
Close the battery door and slide the door lock in the direction as shown by the arrow.

## Installing the MicroSD Card



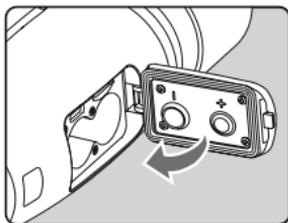
### Open the cover

Flip open the USB and memory card cover. Do not detach the cover.



### Insert the card

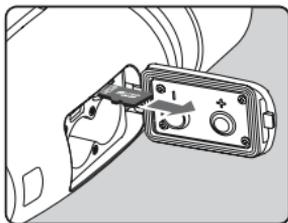
Place a microSD card in the memory card slot, with the metal contacts facing forward and up, then push the card until it clicks in place.



### Close the cover

Close the cover to its original position.

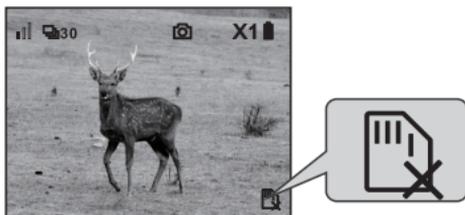
## Removing the MicroSD Card



### Remove the card

Push the microSD card in gently. It will then release itself from the slot.

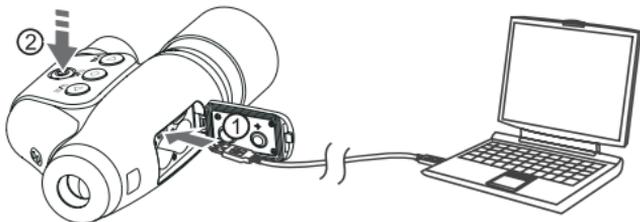
Without a microSD card in the device, the “no microSD card” icon [  ] will be displayed.



## Memory Card and USB Connection

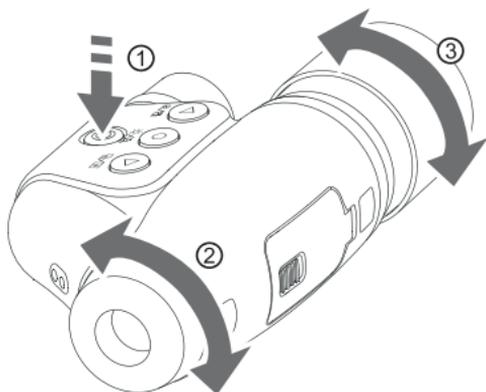
The saved images can be transferred to a computer by removing the memory card or via a USB cable.

Turn the device off and then connect the USB cable as shown below. When the device is turned on again, the computer will detect the microSD card automatically.



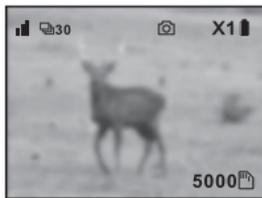
Do not remove the memory card while the device is transferring or accessing data. Doing so may cause losing the data, or damaging to the memory card or the device. The manufacturer or distributor shall not be liable for any lost data or other indirect, incidental or consequential damages.

## BASICS



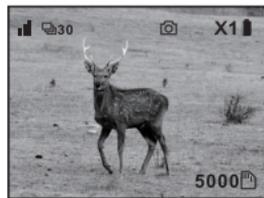
### 1. Turning On the Power

Press and hold <  > for 2 seconds to turn on/turn off the Night Scope.



### 2. Focusing the Eyepiece

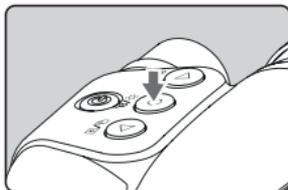
Rotate the eyepiece until the icons on the screen are sharp and clear.



### 3. Focusing the Objective

Rotate the objective until a sharp image is seen on the screen.

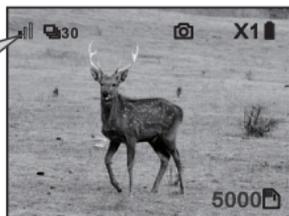
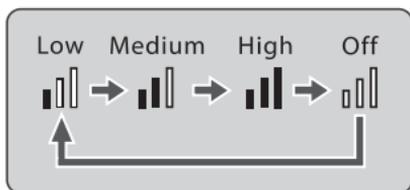
## Adjusting the Infrared Intensity (IR Intensity)



There are 4 IR modes available: low intensity, medium intensity, high intensity and IR off.

Press <  > once to change mode and cycle through to the next mode.

Tip: The farther the object, the higher the required IR intensity.



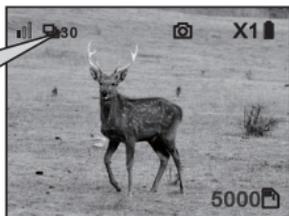
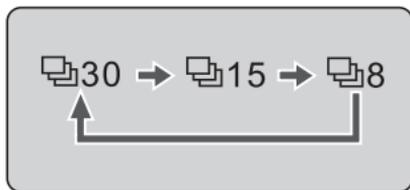
## Frame Rate (Frames per Second)



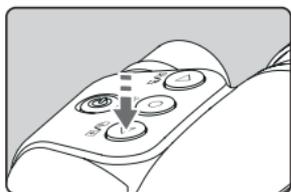
There are 3 frame-rate modes available: 30 fps, 15fps and 8 fps.

Press <  > once to change frame rate and cycle through to the next.

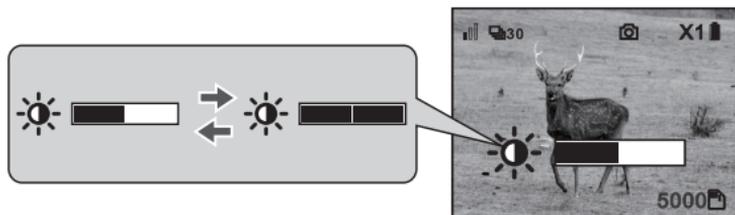
Tip: Use lower frame rate for darker condition/ more distant objects.



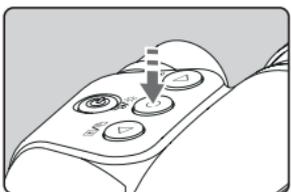
## Screen Brightness



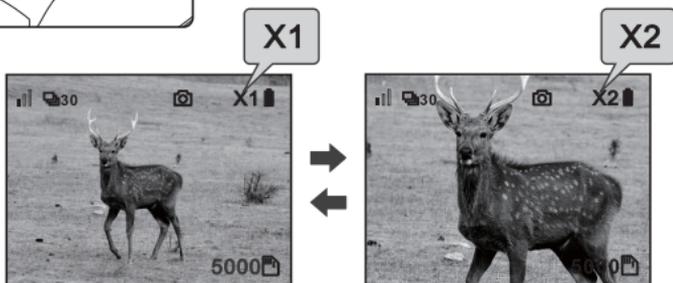
Press and hold <☀> for 2 seconds to toggle between a dim and bright screen.



## Digital zoom



Press and hold <🔍> for 2 seconds to trigger the 2x digital zoom. Press and hold <🔍> for 2 seconds to return to 1x.

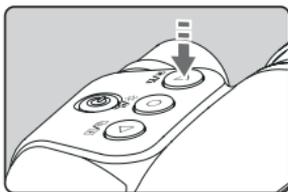


## Capturing Image

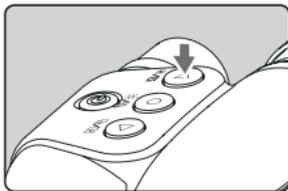


Press <  > to capture image. The image will be saved on the microSD card.

## Recording Video

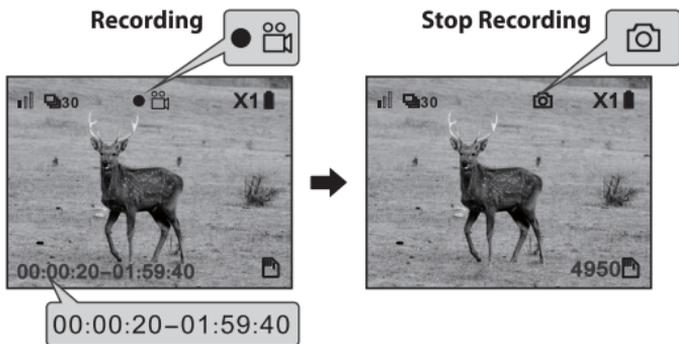


Press and hold <  > for 2 seconds to start video recording. The icon on the screen will change from [  ] to [  ], and the timer on the bottom left corner will start.



Press <  > to stop recording.

The device will save a new file every 10 minutes.



## Turning Off the Power



Press and hold <  > for 2 seconds to turn off the Night Vision Monocular and Camcorder.

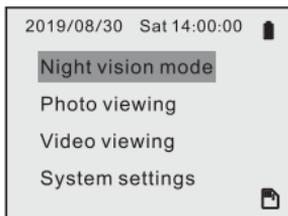
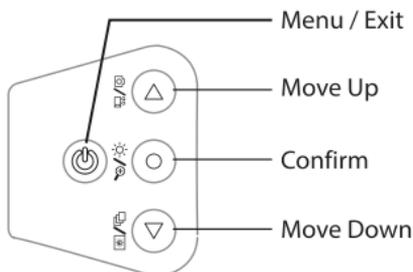
The device will enter sleep mode when left idle for 5 minutes; press any button to resume operation. After 5 minutes, the scope will automatically power off and enter sleep mode.

## Infrared Intensity and Battery Consumption

There are 3 levels of infrared (IR) intensity and an IR off mode. The default setting at power-up is low intensity. Quick press <  > to intensify select the IR level; each successive press cycles through the IR intensify levels, from low to medium to high to off. Once to cycle through low intensity, medium intensity, high intensity and IR off. It is suggested to start with the lowest level. A higher IR intensity is needed for viewing in darker environments or when viewing more distant objects. More battery power is consumed at higher IR intensities. Two brand new CR123A batteries can power continuous operation for approximately 150 minutes.

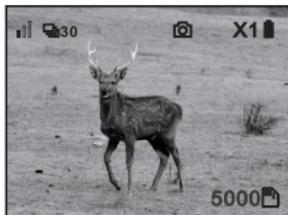
## PLAYBACK AND SYSTEM SETTINGS

### Scrolling the Menu with the Buttons



#### Select Item

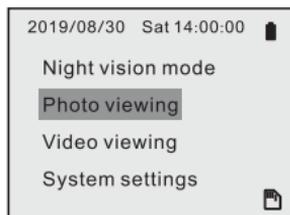
Press <⏻> to display menu screen. Select an item using the <▲> / <▼> buttons. Press <⊙> to confirm.



#### Return to Night vision mode

Press <⏻> to return to the Night Vision mode.

## Playing Back the Image



### Enter Photo viewing

Use <▲ / ▼> to select the "Photo viewing" tab and press <⊙> to playback the first image.



### Select image

Use <▲ / ▼> to select an image.

The icon on the bottom right corner shows the image number being viewed and the total number of images stored.

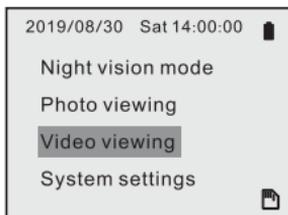
Press <⊙> to return the menu.



### Deleting an image being viewed

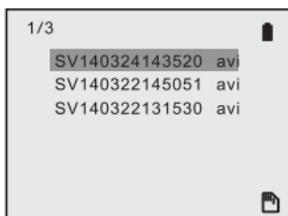
Press and hold <⊙> for 2 seconds. Press <⊙> to confirm.

## Playing Back the Video



### Enter video viewing

Use <▲ / ▼> to select the “Video viewing” tab and press <⊙> to enter the video directory.

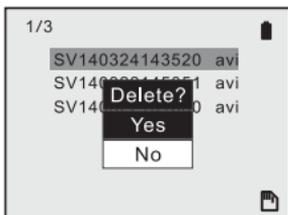


### Select video viewing

Use <▲ / ▼> to select the video file, press <⊙> to view.

Press <⊙> to freeze a frame while viewing and press it again to resume.

Press <⏪> to go back.

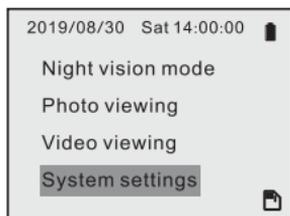


### Deleting a video

At the video directory, select the video you want to delete, press and hold <⊙> for 2 seconds.

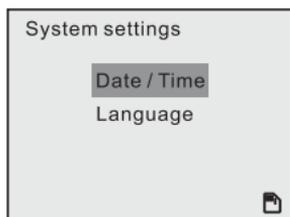
Press <⊙> to confirm deletion.

## Setting Date and Time



### Enter System settings

Use <▲ / ▼> to select the “System settings” tab, then press <⊙>.



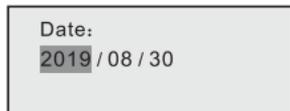
### Enter Date/Time

Use <▲ / ▼> to select the “Date/Time” tab, then press <⊙>.

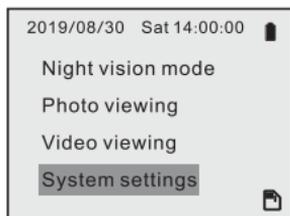


### Set the date and time

Use <▲ / ▼> to select an item, press <⊙> to confirm selection. The item will start flashing. Use <▲ / ▼> to increase or decrease the number, press <⊙> to confirm.

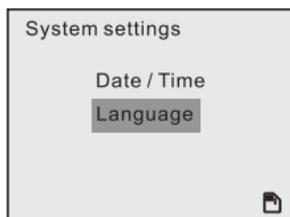


## Selecting the Display Language



### Enter System settings

Use <▲ / ▼> to select the "System settings" tab, then press <⊙>.



### Enter Language

Use <▲ / ▼> to select the "Language" tab, then press <⊙>.



### Select the interface language

English is set by default, use <▲ / ▼> to select the desired language, then press <⊙>.

# COMPLIANCE

## FCC Class B Notice

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

## Class B Devices

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.
- Consult the dealer or an experienced radio/ TV technician for help.

## ICES-003 Class B Notice

This Class B digital device complies with Canadian ICES-003(B)/NMB-3(B).

## EU Declaration of Conformity

Hereby, Night Owl Optics, INC., declares that the NOXM-50DG Night Vision Monocular complies with the EMC standards under Directive 2014/30/EU.

EN 55032:2015

EN 55035:2017



# ***Night Owl Optics***<sup>®</sup>

1120 Alza Drive,  
El Paso, Texas 79907  
1-800-444-5994  
[www.nightowloptics.com](http://www.nightowloptics.com)

**WARRANTY SERVICE: [service@nightowloptics.com](mailto:service@nightowloptics.com)**

Errors and technical changes reserved.