CARSON®

Aura™ Plus   NV-250

Digital Night Vision Monocular / Camcorder

Instruction Manual

CONTENTS

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 moisture.
- Do not leave your device in a place with extreme high or low temperatures.
- 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 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 look directly at the sun or any bright light source using this device as it can cause permanent eye damage.

Introduction

■ The Digital Night Vision Monocular and Camcorder allows you to view objects and capture still and video images in the dark. The high intensity beam of infrared enables visibility as far as 120m 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 maximize visibility in all lighting situations.

■ Familiarize yourself with the night vision monocular before using it. Read the manual and follow the steps and test it with a few shots in a dark room. After the image/video is captured, play it back and check whether it has been recorded properly.
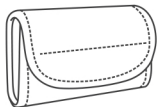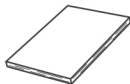
PRODUCT AT A GLANCE

Package contents

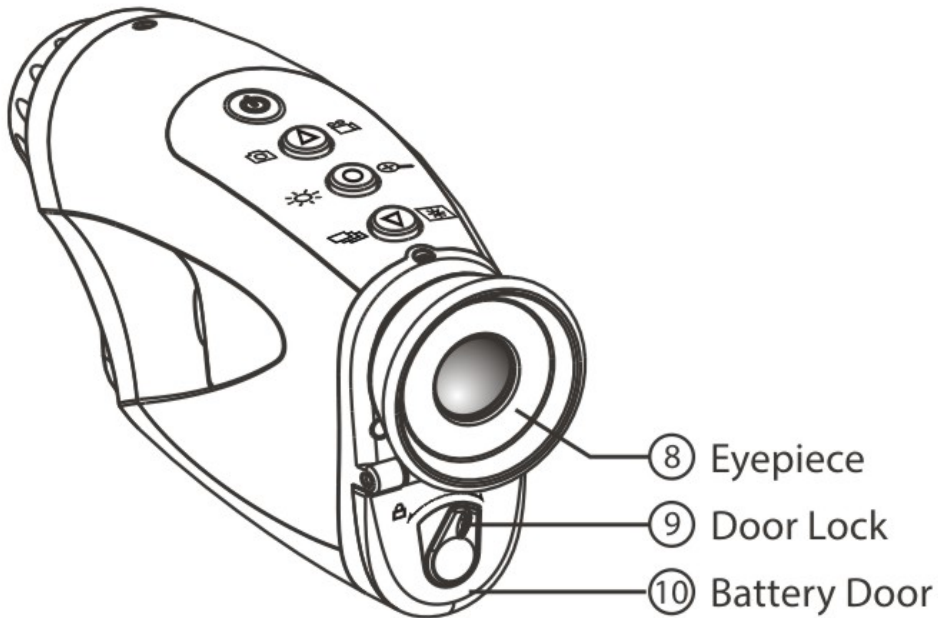Digital Night Vison Monocular and Camcorder

Pouch

User Manual

USB Cable

Strap

microSD card w/Adapter
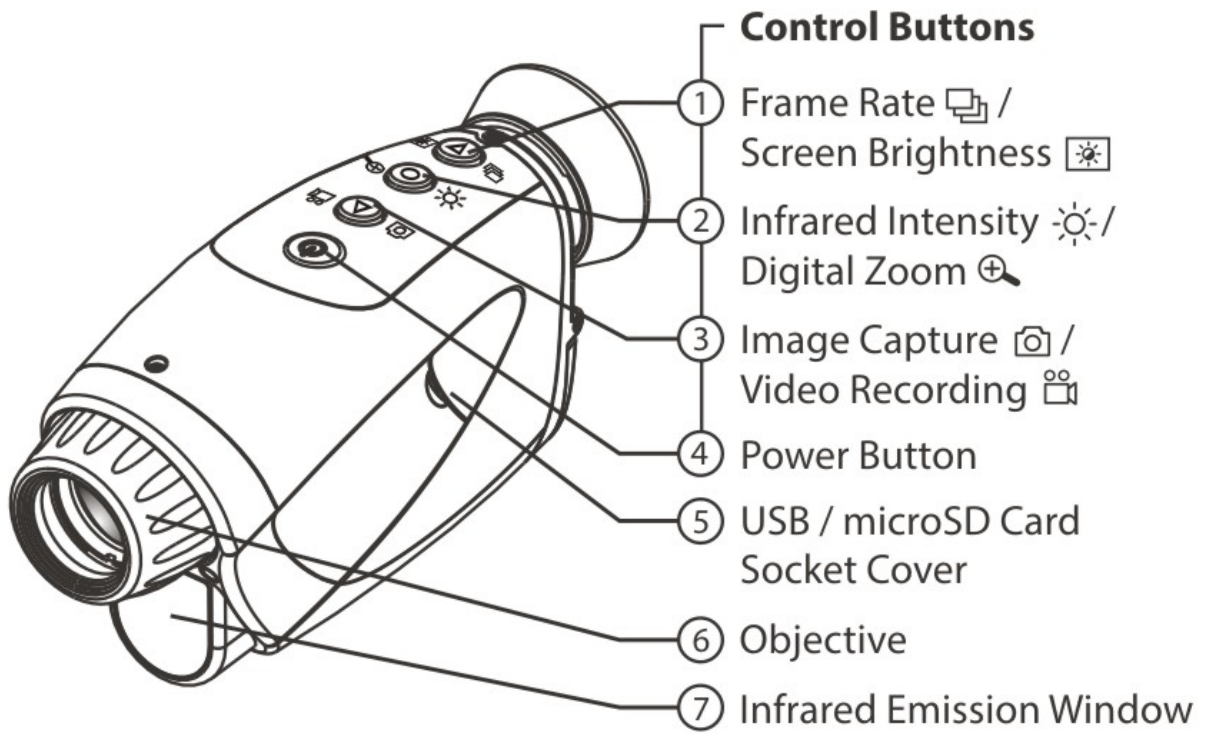
Product overview

Control Buttons

① Frame Rate ⊡ /
  Screen Brightness ☀

② Infrared Intensity ☼ /
  Digital Zoom ⊕

③ Image Capture ⌾ /
  Video Recording ⌁

④ Power Button

⑤ USB / microSD Card
  Socket Cover

⑥ Objective

⑦ Infrared Emission Window

⑧ Eyepiece

⑨ Door Lock

⑩ Battery Door

Specifications

Objective	Focal length : f=25.9 Aperture : F 1.52 Field of view : 10°
Eyepiece	Dioptric compensation : −4.0∼+2.0D
Infrared range	Approximately 120m
microSD card	8GB * included (support up to 32GB)
Sensor	CMOS
Maximum video capturing resolution	640 x 480 pixels (VGA)
Magnification	2x∼4x
Zoom	2x (Digital)
Battery	3 x AAA
Weight	Approximately 5 ounces (without batteries)

* 1GB=1,000,000,000 bytes. Actual capacity may vary. Some capacity is used for memory maintenance and other functions and is not available for storage.

Status icon

Video recording ────────────────

Recording indicator ────────────

Frame rate ──────────────

🗗30 Frame rate 30 fps

🗗15 Frame rate 15 fps

🗗8   Frame rate 8 fps

Infrared intensity ─────

▮▮▮ High

▮▮▯ Medium

▮▯▯ Low

▯▯▯ Off

Image capture

Digital zoom

X1 Digital zoom off

X2 2x digital zoom

Battery level

🔋 Battery level-High

🔋 Battery level-Medium

🔋 Battery level-Low

🔋 Replace battery

▮▮▮ 🗗30   ● 🎥 📷   X1 🔋

00:05:32−01:54:28   5000 🗂

REC time ────────────

Time remaining ──────────────

SD card status
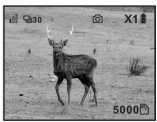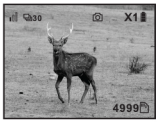
🗂 Card installed

🗂 No card

Remaining photos

Quick start guide

Press < ⬇ >

Press and hold < ⬇ > for 2 sec.

Power Button

Image Capture — Video Recording

Infrared Intensity — Digital Zoom
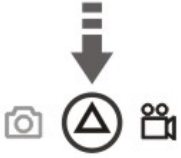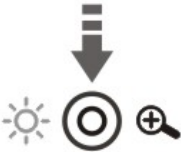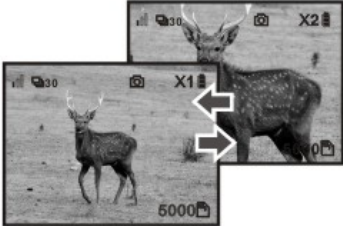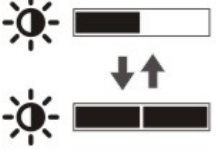
Frame Rate — Screen Brightness

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).	X1 5000
Focusing	② ①	Adjust the eyepiece ① until the icons on the screen are clear, then adjust the objective ② until your target is clear.	X1 5000
Image capture	⬇ ⊡ △ ⊡	Press < △ > to capture image.	X1 4999

9

| 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 Vision Monocular will start a new file every 10 minutes.	X1 ▐ ● 🎥 📶 ⎘30 (deer image) 00:00:20–01:59:40
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.	X2 ▐ / X1 ▐ (deer images) 5000
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 you start using the Night Vision Monocular and Camcorder, make sure the batteries and microSD card are installed properly.
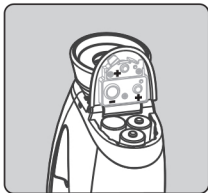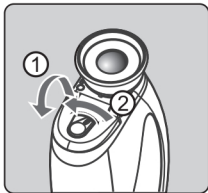
GETTING STARTED

Installing the batteries
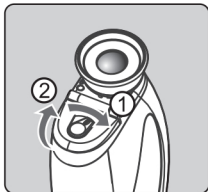
Open the battery door

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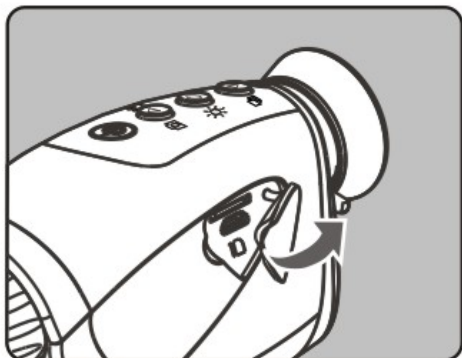
Insert batteries

Insert 3 AAA alkaline batteries into the battery compartment in their correct polarity positions.
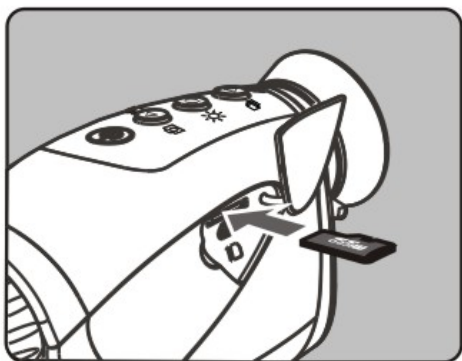
Close the battery door

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.
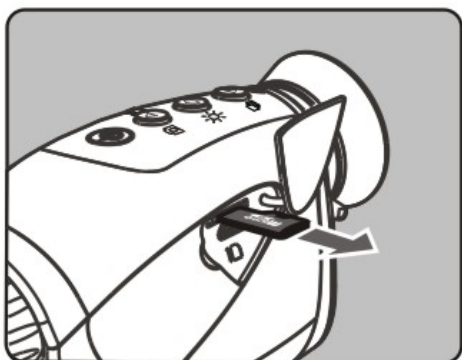
Insert the card

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

Close the cover

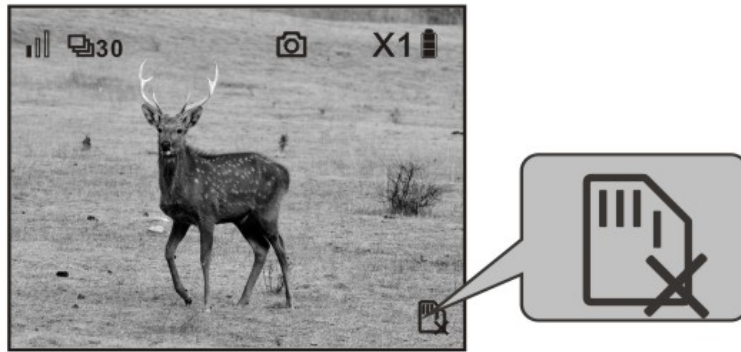Close the cover to its original position.

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.
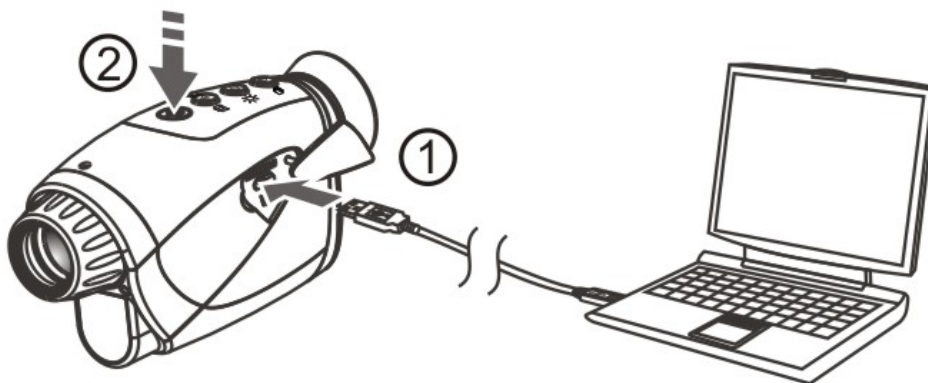

⚠ Do not remove the memory card while the device is transferring or accessing data. Doing so may cause losing the data, or damaging to the memory card or the device. The manufacturer or distributor shall not be liable for the losses caused by misuse or damaged memory card.
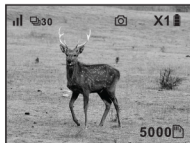
BASICS
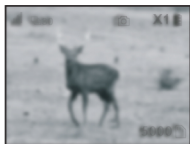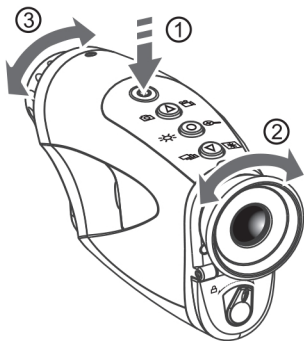
1. Turning on the power

Press and hold < ⏻ > for 2 seconds to turn on/turn off the Night Vision Monocular and Camcorder.
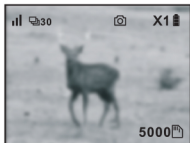
2. Focusing the eyepiece

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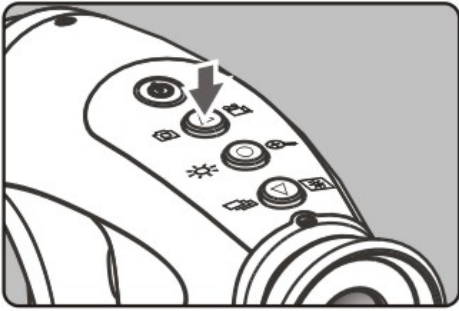
3. Focusing the objective

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

Capturing image

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

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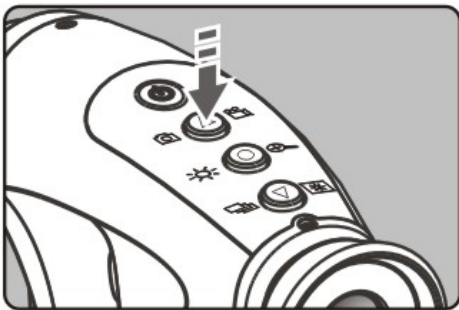
Press and hold < △ > for 2 seconds to start video recording. The icon on the screen will change from [📷] to [● 📹], and the timer on the bottom left corner will start.

Press < △ > to stop recording.

The device will save a new file every 10 minutes.

Recording ● 📹

Stop Recording 📷

00:00:20–01:59:40
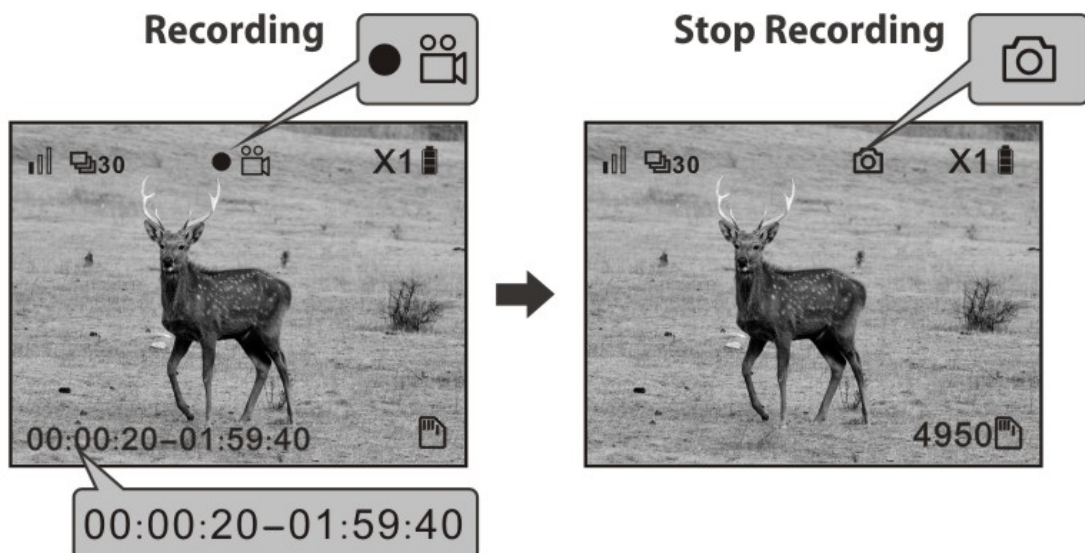
Adjusting the infrared intensity (IR intensity)
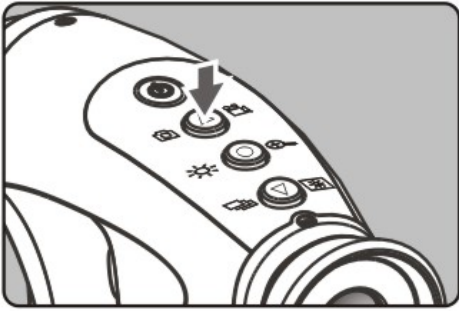
There are 4 IR modes available: low intensity, medium intensity, high intensity and IR off arranged in cyclic order.
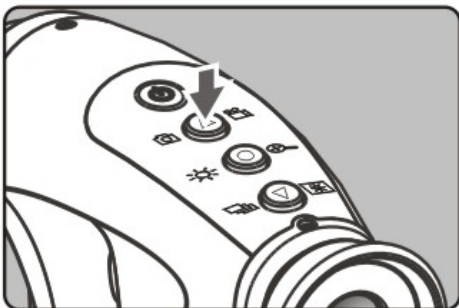
Press < ⊙ > once to change mode and cycle through to the next mode.

Tip: The further the object, the higher the IR intensity is required.

Low   Medium   High   Off
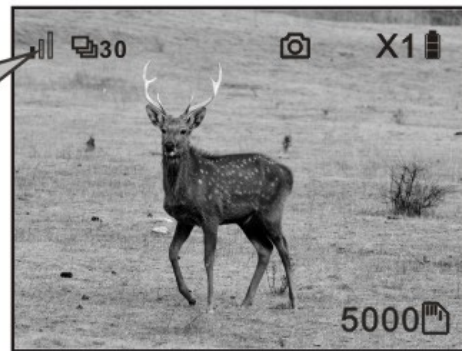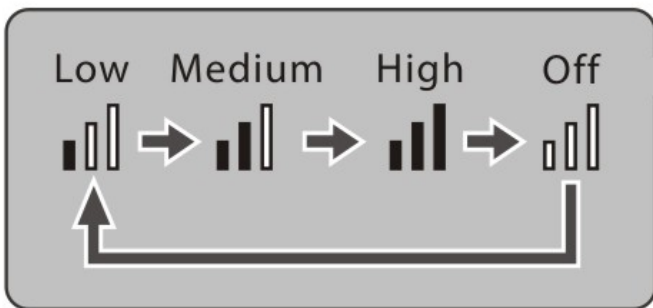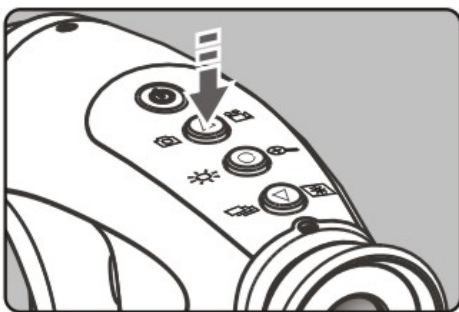
Digital zoom

Press and hold < ⊙ > for 2 seconds to trigger the 2x digital zoom. Press and hold < ⊙ > for 2 seconds to resume.

X1

X2
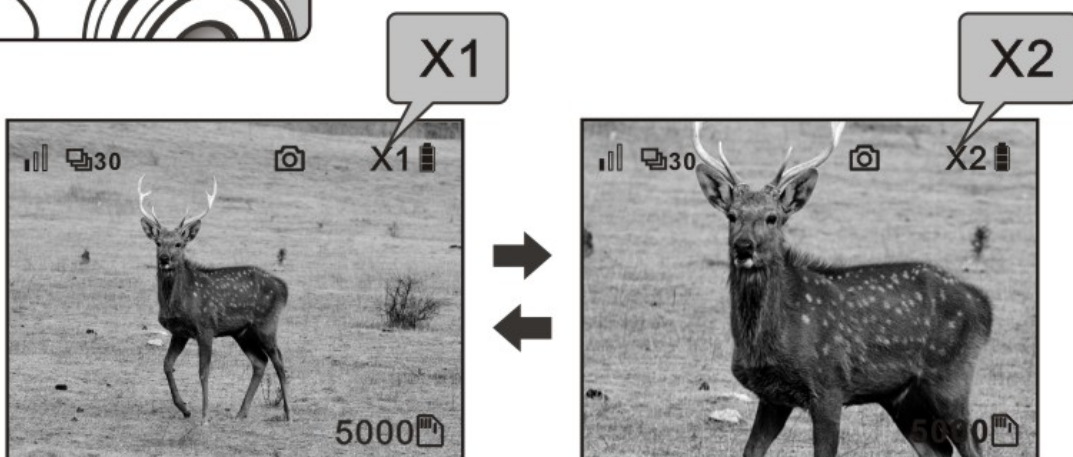
Frame rate (frames per second)
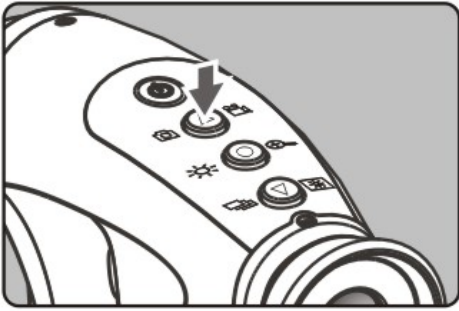
There are 3 frame-rate modes available: 30 fps, 15fps and 8 fps arranged in cyclic order.

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

Tip: Use lower frame rate for darker condition/ further object.
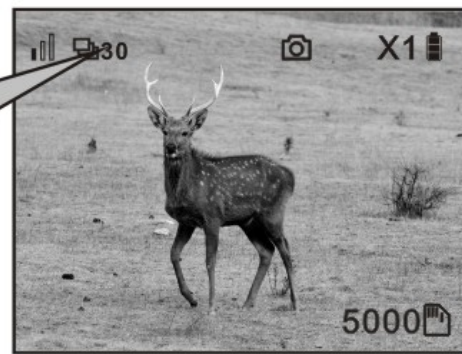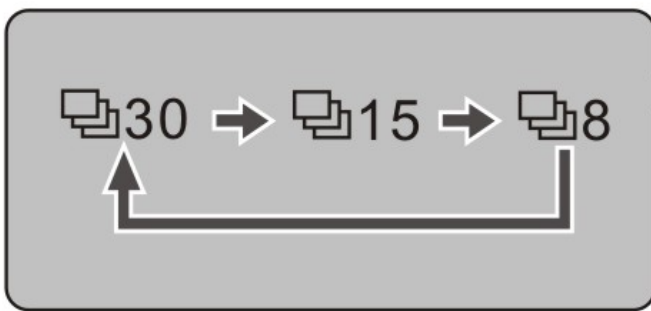
Screen brightness
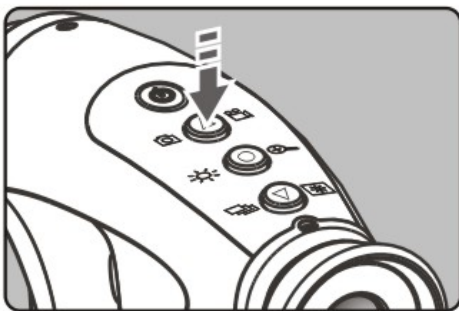
Press and hold < ▽ > to toggle between dim and bright screen.
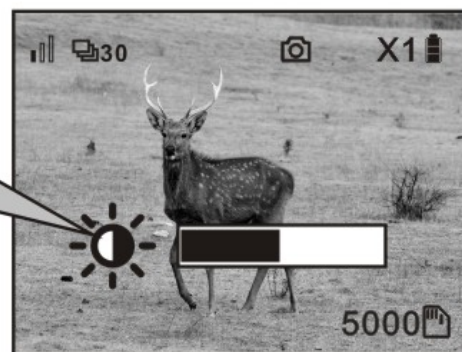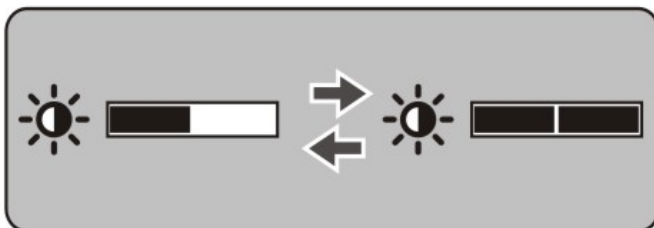
Turning off the power
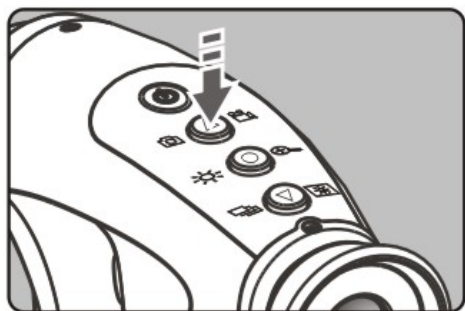
Press and hold < ⏻ > for 2 seconds to turn off the Night Vision Monocular and Camcorder.

The device will enter sleep mode when left idle for 5 minutes, press any button to resume operation. The device will turn off automatically after 5 minutes in sleep mode.

Infrared intensity and battery consumption

There are 3 levels of infrared (IR) intensity and an IR off mode. The default setting is low intensity when turning on the device. Press < ◎ > once to cycle through from 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 environment or when viewing objects in further distance. More battery power is consumed for higher IR intensities. 3 brand new alkaline batteries can power continuous operation for approximately 60 minutes.

PLAYBACK AND SYSTEM SETTINGS

Scrolling through the menu

Menu / Exit
Move Up
Confirm
Move Down

2014/08/30   Sat 14:00:00

Night vision mode
Photo viewing
Video viewing
System settings
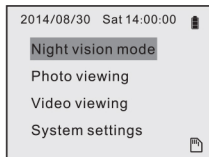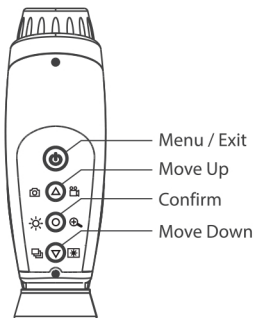
Select Item

Press < ⏻ > to display menu screen. Select an item using the < △ / ▽ > buttons. Press < ◎ > to confirm.
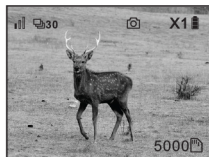
Return to Night vision mode

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

Playing back images

2014/08/30 Sat 14:00:00 🔋	
Night vision mode	
Photo viewing	
Video viewing	
System settings	🗂
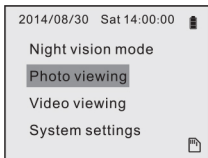
Enter Photo viewing

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.

1/50 🗂

Deleting an image being viewed

Delete?
Yes
No

Press and hold < (◎) > for 2 seconds. Press < (◎) > to confirm.

1/50 🗂

Playing back video

```
2014/08/30  Sat 14:00:00  🔋
Night vision mode
Photo viewing
Video viewing
System settings          📄
```
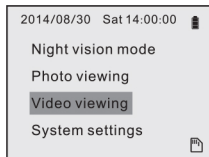
Enter video viewing

Use < ⊘ / ⊽ > to select the "Video viewing" tab and press< ⊙ > to enter the video directory.

```
1/3                       🔋
   SV140324143520  avi
   SV140322145051  avi
   SV140322131530  avi

                          📄
```
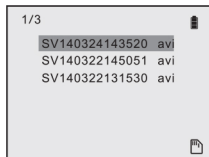
Select video viewing

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.

```
1/3                       🔋
   SV140324143520  avi
   SV14    Delete?
   SV14      Yes
             No
                          📄
```
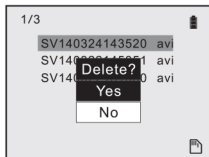
Deleting a video

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
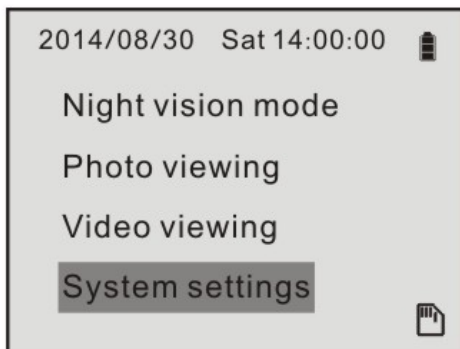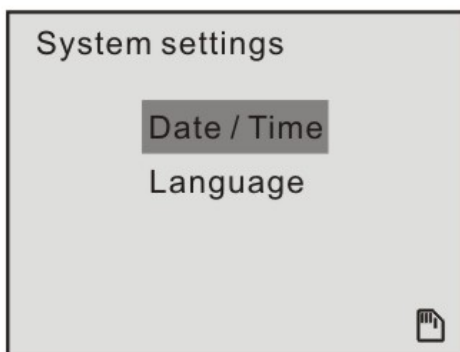
2014/08/30 Sat 14:00:00 🔋 Night vision mode Photo viewing Video viewing **System settings** 〖💾〗	**Enter System settings** Use < ⊖ / ⊖ > to select the "System settings" tab, then press < ⊙ >.
System settings **Date / Time** Language 〖💾〗	**Enter Date/Time** Use < ⊖ / ⊖ > to select the "Date/Time" tab, then press < ⊙ >.
Date / Time Format: Year / Month / Day Date： **2014** / 08 / 30 Time： 14 : 01 〖💾〗	**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.
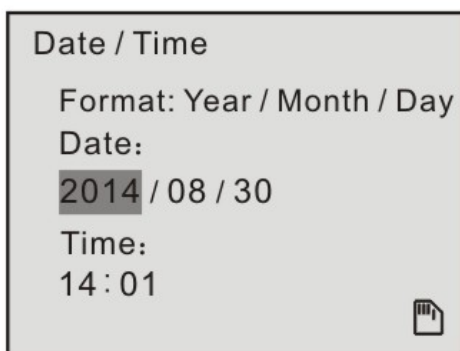
⬇

Date：
2014 / 08 / 30

⬇

Date：
2015 / 08 / 30
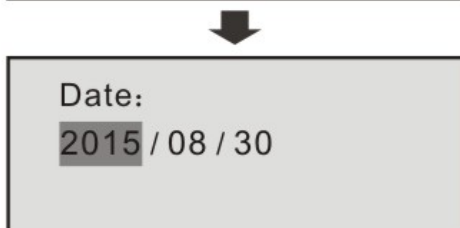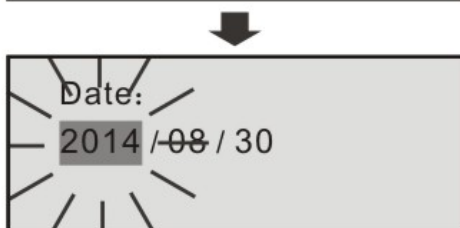
Selecting the display language

| 2014/08/30 Sat 14:00:00 🔋 |
| Night vision mode |
| Photo viewing |
| Video viewing |
| System settings |

Enter System settings
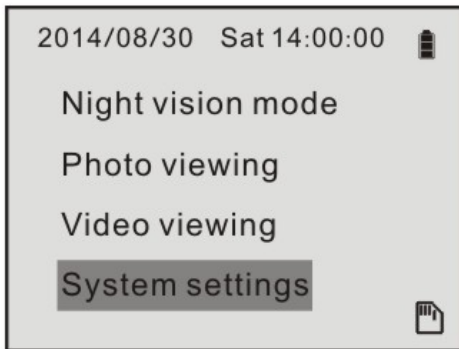
Use < △ / ▽ > to select the "System settings" tab, then press < ◎ >.

| System settings |
| Date / Time |
| Language |
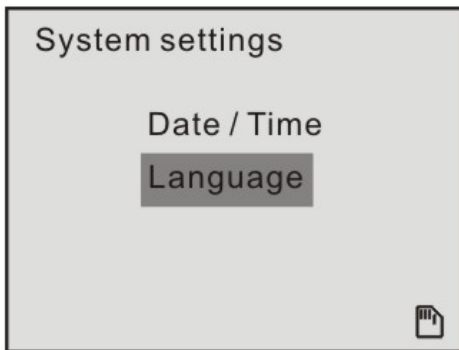
Enter Language

Use < △ / ▽ > to select the "Language" tab, then press < ◎ >.

Language	简体中文
English	繁體中文
Française	
Italiano	
Deutsch	
Español	
日本語	
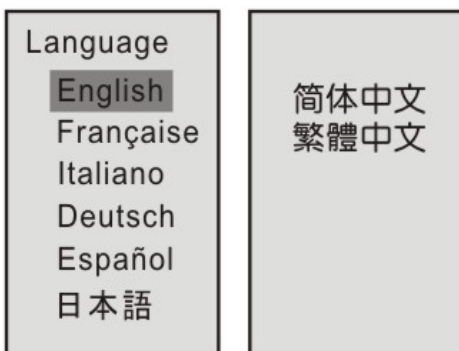
Select the interface language

English is set by default, use < △ / ▽ > to select the desired language, then press < ◎ >.

Carson One Year Limited Warranty

This Carson product is warranted to be free from defects in material and workmanship for a period of one year from date of purchase. During this period Carson will, at its option and without charge, either repair any part or assembly of parts found to be defective in material or workmanship, or replace this Carson product with a Carson product of comparable value and condition, subject to the limitations and exclusions noted herein.

This warranty extends to the original purchaser only and is not assignable or transferable. It shall not apply to any product that has been subject to misuse, abuse, negligence or accident, or to any defects or damage directly or indirectly caused by the use of unauthorized replacement parts and/or service performed by unauthorized personnel.

This warranty gives you specific legal rights, and you may also have other rights which could vary from state to state. Some states do not allow limitations on the life of an implied warranty and/or do not allow excluding or limiting incidental or consequential damages. If so, the above limitations or exclusions may not apply to you.

Warranty Procedure

Provide proof of purchase. *A receipt or other dated proof of purchase must be included* with merchandise being returned for a warranty claim to be processed.

Call or write for authorization. *Before returning any product for a warranty claim, a Return Authorization (RA) number must be obtained.* No merchandise will be accepted without an RA, and failure to obtain an RA will prevent or delay processing of the warranty claim. To obtain an RA call 631-963-5000, or write to Carson Warranty Service, 2070 5th Avenue, Ronkonkoma NY 11779 with a description of the problem. *Include your name address and telephone number.*

Package the return carefully. Shippers will not reimburse for damages due to insufficient packaging, even if the merchandise is insured. *Print the RA number prominently on the top of the package.*

Prepay shipping. Insure the package. Send it to Carson Warranty Service, 2070 5th Avenue, Ronkonkoma, NY 11779. *Merchandise must be shipped prepaid. Carson will not accept merchandise C.O.D.*