### Contents

### Digital Night Vision Mononuclar

Operating Manual

Model: DENVER NVI-450

<b>Contents</b>	1
Contents	4

Introduction ••••••••	••••• 3
Operating Hints ••••••••••	• • • • • • 4
Components Introduction ••••••	5
Operating Instructions •••••••	•••••
Battery Installation •••••••	7
Power On · · · · · · · · · · · · · · · · · ·	···· 8
Power Off · · · · · · · · · · · · · · · · · ·	8 •••••
Scenery Observation ••••••	•••••9
Brightness Adjustment •••••••	•••• 10
Photo Shooting •••••••	
Playback •••••••	•••• 14
Video Shooting •••••••	16
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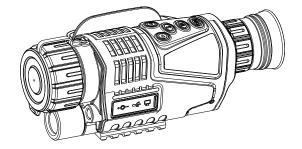
Contents

Monitors Connection ••••••	17
PCs Connection ••••••	17
Auto Power Off · · · · · · · · · · · · · · · · · ·	17
Power management •••••••	18
Basic Parameters •••••••••	19
Configuration Standard · · · · · · · · · · · · · · · · · · ·	21
Operating Environment and Announcements •••••	22

2

#### **DENVER NVI-450**

# Introduction



Name Digital Night VisionModel DENVER NVI-450Features DENVER NVI-450

- It is a night vision monocular which can be used to observe objects in the dark and low light situation. Two lighting modes are available to use. The viewing distance in the low light environment will be at infinity, 200 meters viewing distance in the dark environment.
- Easy to exchange data with other instruments, having USB, AV OUT and DC IN sockets.

#### **DENVER NVI-450**

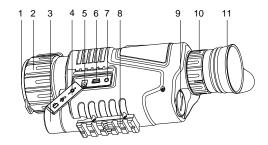
### Operating Hints

- It can be used normally in the day or night, owning the photo shooting, video shooting, playback and other functions. 5X fixed zoom and 5X digital zoom.
- It is the best auxiliary tool of extending human's visual senses.

#### 【Operating Hints】

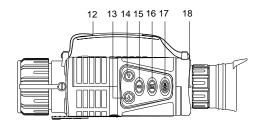
- It is a night vision monocular which can be used to observe objects in the dark and low light situation. Two lighting modes are available to use.
- It is suitable to use in full dark environment.
- Turn the auxiliary light on to observe the objects when it works in the dark situation. Adjusting the brightness by the distance of the objects. CCD is used in this viewer. If there is any light resource existed, the auxiliary light could not be turned on, please adjust the focal distance only to get the sharp image of objects.
- Work time: 1 hour under auxiliary light mode; 1.5 hour without using auxiliary light mode.

### Components Introduction



- 1 Objective Cover
- 2 Objective Focusing Wheel
- 3 High Beam Light
- 4 Socket Door
- 5 -Micro SD card Slot (Not Incl.)
- 6 USB2.0
- 7 DC 5V
- 8 Tripod Receptacle
- 9 Battery Cover
- 10 Diopter Ring
- 11 Eyecup

### Components Introduction



- 12 Hand Grip Strap
- 13 Up
- 14 Down
- 15- Functions(for photos shooting, video shooting and playback)
- 16 Auxiliary Lighting/Brightness Adjustment
- 17 POWER/FUNCTION
- 18 Diopter Dial

5

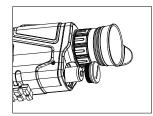
6

#### **DENVER NVI-450**

### Operating Instructions

#### **[Battery Installation]**

• Turn the battery cover down; insert one battery correctly (note the negative electrodes



bottomed) and turn the cover back. Turn the viewer on, the screen could be lighten up if the battery installed correctly. Otherwise, please reinstall the battery again or tighten the cover again.

#### [Announcements]

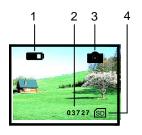
Ensure the model of battery should be correct; Ensure the electric quantity should be full enough; Pay attention to the anode and the cathode of the battery.

#### **DENVER NVI-450**

# Operating Instructions

#### [Power On]

- Take the objective cover down.
- Long press#17 for 3 seconds to lighten screen up, observing from Eyecup(#11),



if the screen has been lighten up and icons have been shown normally, the viewer could be used then

- Icons Instructions:
  - 1 Battery
  - 2 Images Size
  - 3 Current Mode: Photo Shooting Mode
  - 4 SD card in
- The Observing (Photo Shooting) Mode is available to use after the startup.

#### [Power Off]

• In any mode, long press #17 for 3 seconds to turn it off.

# Operating Instructions

#### **[Scenery Observation]**

- Take the objective cover down, observing the screen from eyecup#11.
- 1. Adjust the diopter ring #10 until to get the sharp images
- 2. Adjust the objective focusing wheel #2 to make the images to be sharpest and easy to observe then.
- Automatic fine-tuning control of display brightness could be operated by Viewer.
- Digital zoom could be realized by pressing #13 and #14 ranged at 1x to 5x.
- If the environment is light enough, turn the auxiliary light off to save the power. On the contrary, please turn the auxiliary light on to get the sharpest image to observe
- Otherwise, please turn the auxiliary light on.

#### [Announcements]

Don't block the light resource.

# Operating Instructions

#### 【Brightness Adjustment】

- In the observing mode, press #16.
- Enter the menu of brightness adjustment. Just as the screen showed, the number after "Bright" means the current brightness index.



**Brightness Adjustment** 

• Press #15 to heighten the index and #16 to lower it. 9 means the highest brightness of display. The index ranged at 1 to 9, 9 means the brightest index.

#### [High Beam Adjustment]

In the observing mode, press #16 twice to enter the high beam adjustment menu.

The screen will be just as the picture showed.

The index of LAMP shows the intensity of auxiliary light.



**High Beam Adjustment** 

10

#### **DENVER NVI-450**

9

### Operating Instructions

- Press UP#13, DOWN #14, the high beam will be changed ranged at 0 to 9(9-highest, 0-off).
- When the high beam function is opened, the menu is exited, LAMP shows on the screen will be flickered.

#### **[**Date and time set up **]**

Press#17 three times and then press the DOWN #14 you will come to the time setting surface. Press UP#13, DOWN #14 to change the numbers and press #17 to select the year, month or time and save.

#### **DENVER NVI-450**

# Operating Instructions

#### (Announcements)

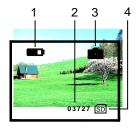
On any mode above, the menu will be disappeared and went back to observing (photo shooting) mode if there is any operation within 8 seconds.

Please turn the auxiliary light off if you don't use it to save the battery.

# Operating Instructions

#### **【Photo Shooting】**

 Enter the observing mode automatically after the viewer turned on and in this mode, you could take the pictures of the scenery.



#### **Icons Instructions:**

- 1 Battery
- 2 Images Size
- 3 Current Mode: Photo Shooting Mode
- 4 SD card in
- press #17 to shoot a photo and the photo will be saved automatically in the SD card.
- The image size is based on the surplus capacity of SD card. The minute difference is available between the actual image size.

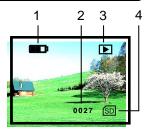
# Operating Instructions

#### [Playback]

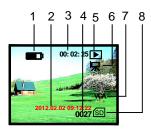
- In the Observing (Shooting) mode, press #15 to enter the Playback function.
- Icons

Instructions(photo):

- 1. Battery
- 2. The serial number
- 3. Playback mode
- 4. SD card in
- Icons Instructions(video):
  - 1. Battery
  - 2. Date
  - 3. Time counting
  - 4. Current serial No.
  - 5. Playback Mode
  - 6. Video Playback Mode
  - 7. VGA Video Format
  - 8. SD card in



**Photos Playback** 



Video Playback

13

#### **DENVER NVI-450**

### Operating Instructions

- In the playback mode, press#13 and #14 to view the photos and videos. The playback order is based on the shooting mode.
- Identify photos and videos and it will be entered different menus automatically.
- In the video playback mode, press#17 to start the video and press again to stop it.

Micro SD card Slot (Not Included)

#### **DENVER NVI-450**

# Operating Instructions

#### **[Video Shooting]**

In the observing mode, press #17 twice to enter the video shooting mode.

Icons Instructions:

- 1. Battery
- 2. Timing
- 3. Video Shooting
- 4. SD card in



- Press #17 to start video shooting.
- The video could be saved in SD card automatically.
- The video size is based on the surplus capacity of SD card. The minute difference is available between the actual video size.

14

# Operating Instructions

#### **[**Monitor Connection ]

- · Connect monitor to video Output Interface.
- · Long press #15 for 3 seconds to switch the display on the screen of external monitor.

#### **[PCs Connection]**

- · The viewer is equipped with USB2.0 interface.
- The PC could identify the viewer automatically and read the content in the SD card.
- · The battery could be charged by connection of PCs.

#### **[Auto Power Off]**

 The viewer will be turned off if there is not any operation within 3 minutes except in video shooting and playback mode.

**DENVER NVI-450** 

17

### Basic Parameters

#### **Basic Parameters**

Туре	Items	Index
	Magnification	5
	Dimension of Objectives	ф 40mm
	Field of View	5° x3.75°
Optical Performance	The Range of Ocular Adjustment	±0.6
T OT FOT MOTIVE	Observing Distance(Low Light Environment)	2m∼∞
	Observing Distance(Full Dark Environment)	$\sim$ 200m

### Power Management

### **[Battery Application]**

- · Model: 14500, 800mAh, 3.7V.
- Please ensure the battery should be charged 10 hours to make it works best in the first time.

#### **External Power**

- · Plug the DC IN 5V in.
- The viewer could work for long time and won't be powered off automatically.
- The viewer could be charged when the external power connected well.

**DENVER NVI-450** 

18

# Basic Parameters

	Voltage	3.7V DC	
Power	Replaceable Battery	Rechargeable Battery	
rower	Charging Source	5.0V/2A Adapter	
Other	$\begin{array}{c} \text{Measurement} (L \\ \times \mathbb{W} \times \mathbb{H}) \end{array}$	200 x 86 x 56 mm	
	Weight	400g	

19

#### **DENVER NVI-450**

# Configuration Standard

#### 【Configuration Standard】

Items	Amount
video cable	1
USB cable	1
Pouch	1
External power adapter	1
Operating Manual	1
Hand grip Strap	1
battery	1
Cloths	1

### 【Operating Environment and Announcements】

The viewer should be kept in the soft pouch. Operating temperature ranged at -5~40°C. Relative humidity is 80%. In order to avoid the wetness and mildew, please keep it in the clear and dry environment. Avoiding the great pressure and solar radiation also please.

When the image jitter happens or the LCD couldn't be lightened up, please charge the battery in time.

Blow away the dusts before wipe the optical surface. If the viewer won't be used for a long time, please keep charge the battery occasionally to avoid the effectiveness lose.

21

22

Please notice - All products are subject to change without any notice.

We take reservations for errors and omissions in the manual.

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Electric and electronic equipment and included batteries contains materials, components and substances that can be hazardous to your health and the environment, if the waste material (discarded electric and electronic equipment and batteries) is not handled correctly.

Electric and electronic equipment and batteries is marked with the crossed out trash can symbol, seen above. This symbol signifies that

As the end user it is important that you submit your used batteries to the appropriate and designated facility. In this manner you make sure that the batteries are recycled in accordance with legislature and will not harm the environment.  All cities have established collection points, where electric and electronic equipment and batteries can either be submitted free of charge at recycling stations and other collection sites, or be collected from the households. Additional information is available at the technical department of your city.  DENVER A/S  Omega 5A, Soeften  DK-8382 Hinnerup	electric and electronic equipment and batteries should not be disposed	
the appropriate and designated facility. In this manner you make sure that the batteries are recycled in accordance with legislature and will not harm the environment.  All cities have established collection points, where electric and electronic equipment and batteries can either be submitted free of charge at recycling stations and other collection sites, or be collected from the households. Additional information is available at the technical department of your city.  DENVER A/S  Omega 5A, Soeften  DK-8382 Hinnerup  Denmark	of with other household waste, but should be disposed of separately.	
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