

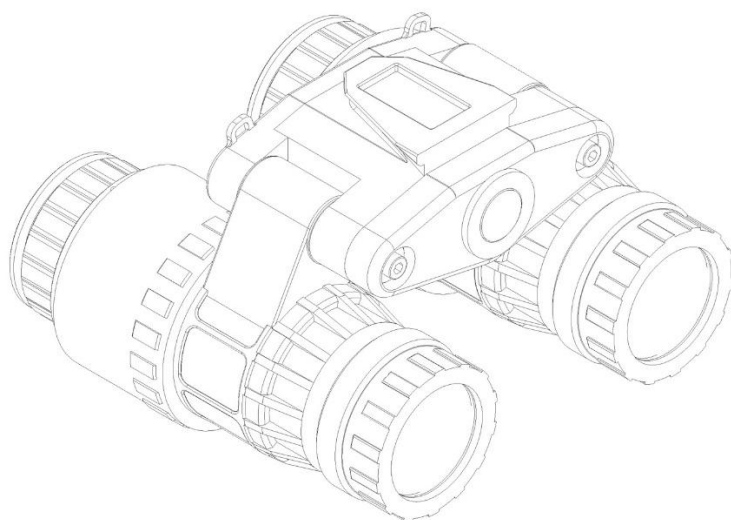


NOCTURNALSYS

DNV2

RANGER V3

Night Vision Device



Instructions

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1.1 SAFETY SUMMARY

Before using this product, please read the operating instructions carefully to avoid incorrect use.

Keep these operating instructions well for future reference. If the device is sold or passed on, the operating instructions should be given to the new owner/user of the product.

The DNV 2 Ranger V3 is an electro-optical device and requires extremely careful handling. To avoid potential damage and injuries to the user during the operation of the DNV 2 Ranger V3, it is important to pay close attention to all WARNINGS, PRECAUTIONS, and NOTES.

Below are the definitions of the different warnings that appear throughout the manual:

- **WARNING:** Indicates an immediate hazard to the person using the device.
- **CAUTION:** Indicates the potential risk of damage to the device.
- **NOTE:** Emphasizes important procedures, conditions, statements, and essential instructions for the user.

1.2 GENERAL NOTES

WARNING:

- Attention: This product contains PETG, which may trigger allergic reactions! If you are allergic to PETG, it is strongly recommended to identify products containing PETG and strictly avoid any contact with them.
- Note that children should use the device only under supervision. Keep packaging materials such as plastic bags or rubber bands away from children, as they can pose a SUFFOCATION HAZARD.
- Avoid exposing the device to high temperatures. Excessive heat or improper handling can lead to short circuits, fires, and even explosions!
- Ensure that the device and especially the lenses are not exposed to direct sunlight. Concentrated light rays can cause fires.
- The device contains electronic parts powered by a power source. Never leave children unattended with the device! Use it strictly according to the instructions to avoid the DANGER of ELECTRIC SHOCK!
- Please note that using the device may limit your vision and therefore increase the RISK of ACCIDENTS. Never use the device unsupervised.

CAUTION:

- The DNV 2 Ranger V3 is an electro-optical device and requires careful handling at all times to avoid possible damage to the device and danger to the user.
- Do not attempt to force the controls beyond their limits, as this can damage the mechanisms.
- Before storing in the carrying case, please thoroughly clean each component of the DNV 2 Ranger V3 with a dry cloth.
- The device contains glass parts. Use the device only while wearing appropriate protective eyewear.

NOTES:

- The functionality of the device requires residual light (such as moonlight or starlight).
- The performance of residual light amplification under night conditions depends on the amount of ambient residual light. Please note the following:
 - The amount of residual light is reduced by clouds, shadows, or objects blocking natural light.
 - In shadows and other darkened areas, the device's performance is reduced. To increase effectiveness, it is recommended to use the device in conjunction with an infrared illuminator.
 - The device's efficiency is reduced when operating in rain, fog, sleet, snow, dust, or smoke.
 - The device cannot see through dense smoke.
 - The device is not intended for use in rain.
- Please keep all packaging materials for returning defective components.
- Do not disassemble the device! In case of a defect, contact the manufacturer.

1.3 GENERAL INFORMATION AND PURPOSE

The DNV 2 Ranger V3 is a night vision device that allows the user to operate it while walking or standing. It can be used either as a handheld device or mounted on a helmet.

The DNV 2 Ranger V3 employs digital image enhancement technology by utilizing the residual light reflected from surrounding objects. The optical configuration of the device includes a camera, a display, and a lens. The screen focus can be adjusted via the lens.

1.4 DEVICE NAME

DNV 2 Ranger V3

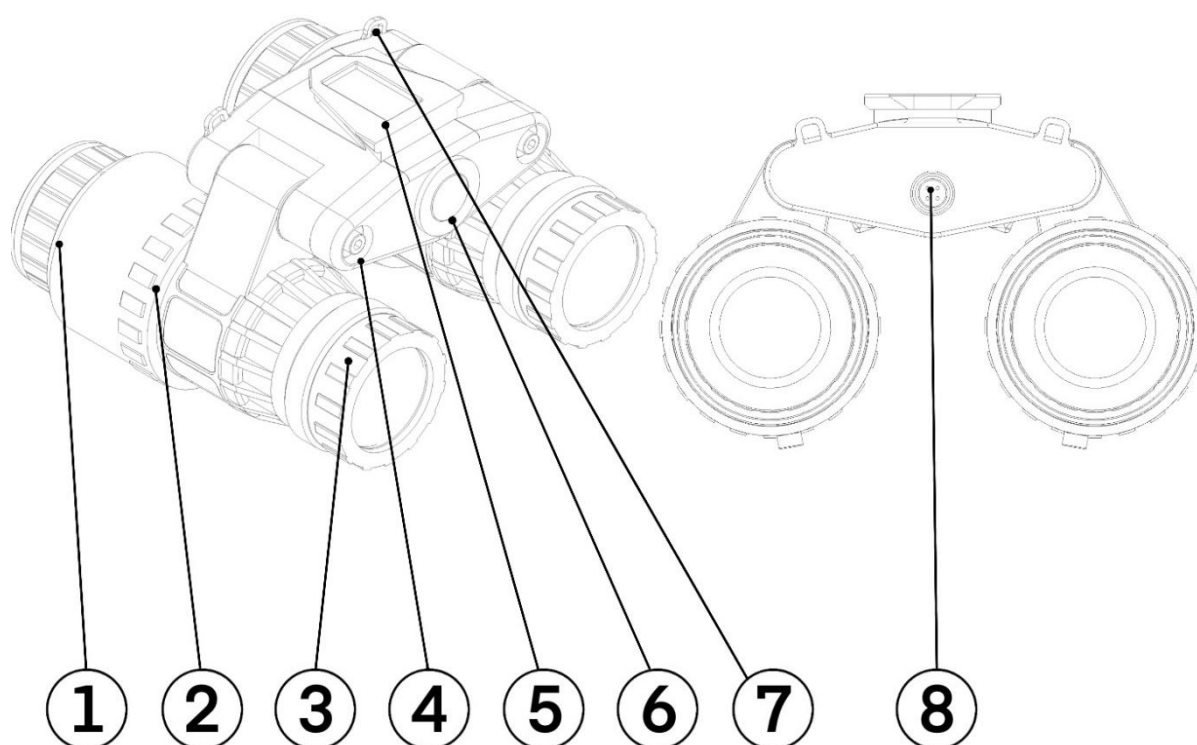
1.5 REPORTING RECOMMENDATIONS FOR DEVICE IMPROVEMENT

The manufacturer encourages users to submit improvement suggestions for the device. Please send your comments to:

Email: info@nocturasys.com

Instagram: nocturasys

1.6 SYSTEM DESCRIPTION



Number	Description
1	Focus Ring
2	Screen Orientation
3	Fastening
4	Fastening Screw
5	Shoe For Helmet Mount
6	Operation Button
7	DC Connector

2.1 SPEZIFICATION

Mechanical Properties

Element	Dimensions	Weight
DNV 2 Ranger V3	117x112x79mm	483g

Electrical Properties:

Element	Technical specifications
DNV 2 Ranger V3	Voltage: 5V at 2,4A Resolution: 800x600px

Optical components:

Element	Technical specifications
Lens	M16 8mm Low-Light-Linse 4:3 FOV-H: 42,1° FOV-V: 23,7°
Sensor	1/1.8"4MP

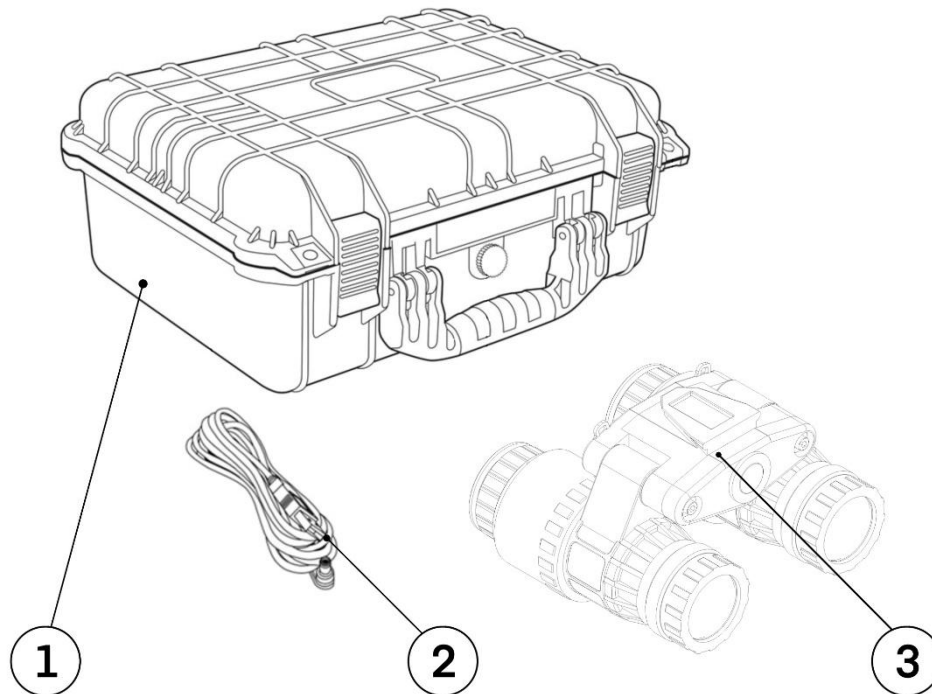
Environmental data:

Element	Technical specifications
Working temperature	-10° to 50°C
Storage temperature	-20° to 60°C
Humidity	20% to 80%
Minimum illuminance	0,001 Lux
Protection class	none – like IP44

WARNING

- Use the device only within the specified operating voltage with recommended power supply!
Recommended: LOGILINK PA0316 Powerbank, Li-Po, 10000 mAh, 2x USB-A, USB-C, schwarz
- Do not use the device in wet conditions.

2.2 SCOPE OF DELIVERY



Number	Description
1	Storage Case
2	Powercable
3	DNV 2 Ranger V3
4	Instructions (only digital)

3.1 COMMISSIONING

To ensure error-free operation, follow all steps provided in the user manual carefully and in the correct sequence.

3.2 INSERTING BATTERIES

1. Connect the DC to USB cable to the Powerbank.
2. Remove the dust cover of the DC plug from the device and connect the DC to USB cable with the DC connector
3. Power on the DNV 2 Ranger V3 by pressing the operation button.

3.3 APPLICATION PROCEDURE FOR DEVICE

1. Ensure that the batteries/external power source are suitable for operation. A power source with a standard USB voltage of 5V and at least 2.4A is suitable. Recommended: LOGILINK PA0316 Powerbank, Li-Po, 10000 mAh, 2x USB-A, USB-C, black
2. Visually estimate the illumination level in the observation area; the required illumination level is 0.001 Lux.
3. Press the power button after a brief delay, the image will appear on the screen.
4. Adjust the screen position if necessary; refer to "Screen Orientation" on page 9 for guidance.
5. Adjust the focus of the lens to the screen by rotating the focus ring.
6. Observe the scene.

WARNING

- Immediately turn off the device in case of image issues such as noise or missing image!
- Avoid operating the device under direct sunlight exposure!
- Operate the device with external power sources only under the prescribed voltage of 5V with 2.4A!
- Do not operate the device with defective batteries!
- Do not operate the device in wet and rainy conditions!
- Do not operate a vehicle while using the device!
- Wear appropriate protective eyewear when using the device!

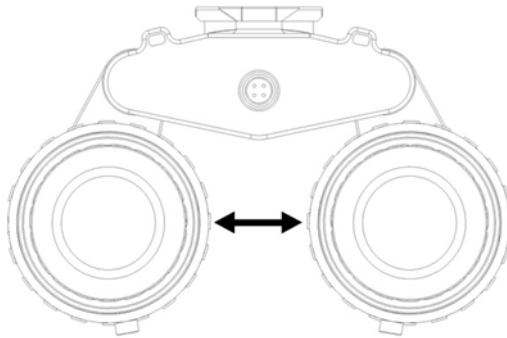
3.4 TURNING OFF AND STORING THE DEVICE

1. Turn off the device by pressing the power button.
2. Disconnect the operation cable from the device and power source.
3. Clean the lenses of the device with a dry cloth.
4. Storage the device in its storage case.

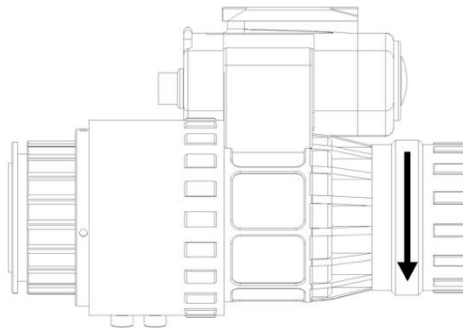
3.5 SCREEN ORIENTATION

Screen orientation allows you to rotate the screen into a desired position.

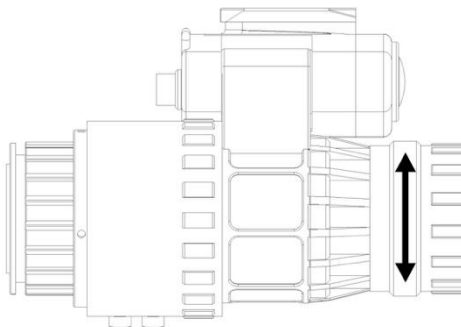
1. Adjust the correct distance of the tubes to match your eye spacing.



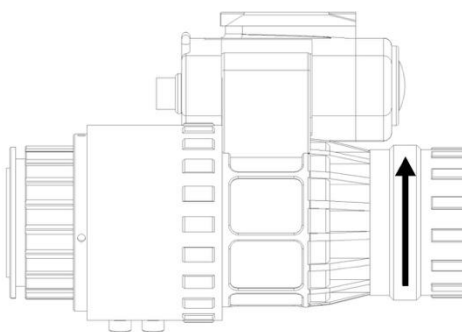
2. Unscrew the fastening by half a turn.



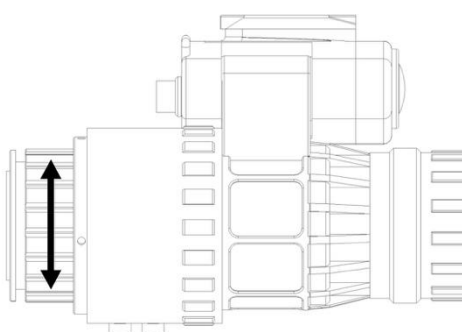
3. Rotate the screen to the desired position using the screen orientation.



4. Secure the fastening by turning it back.



5. Adjust the image sharpness by turning the focus ring.



WARNING

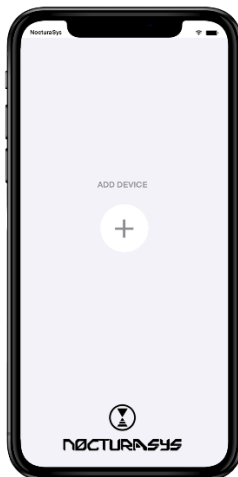
- The screen cannot be rotated completely 360°. Do not attempt to force it beyond its limits, as this may cause damage to the device.

4.1 APP CONNECTION

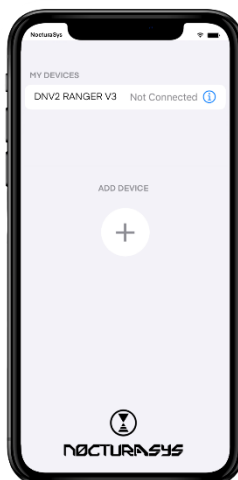
1. Download the NocturaSys app to your cell phone:
<https://www.nocturasys.com/app>



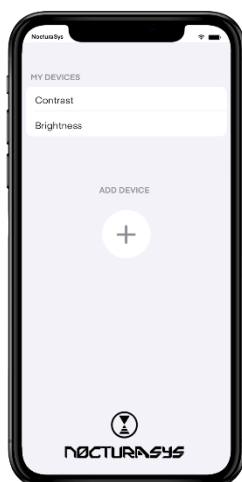
2. Switch on the DNV2 Ranger V3 according to the instructions on page 8.
3. Open the NocturaSys app and tap on „ADD DEVICE“.



4. Open the Wi-Fi settings of your cell phone and connect to the “DNV2 Ranger V3” network.
5. Return to the app. The device should now appear on the home screen of the app.



6. Tap on the displayed device to make the desired settings.



4.2 TROUBLESHOOTING

Type of error	Troubleshooting
Graphics error	Restart the device
Tubes do not stay in the desired position	Tightening the locking screws required



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