

PATRIOT

NVECTECH

Instruction for the
thermal imaging monocular

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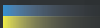
INTRODUCTION

DEVICE DESCRIPTION

Patriot 2 thermal imaging monoculars are reliable companions for tactical operations in extreme environments. They provide high resolution and detection range, allowing operators to see in the dark, through fog and smoke.

Patriot 2 is more than just a device, it is guaranteed accuracy and reliability that helps Ukrainian defenders carry out their missions with confidence and efficiency.

УКРАЇНА



FEATURES

Battery indicator:
Intelligent indication
battery charge.



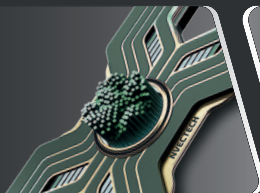
A wide selection of lenses:
19 mm – 1200 m;
25 mm – 1500 m;
35 mm – 2000 m;
50 mm – 2900 m.

Updated menu:
More convenient
and functional interface.



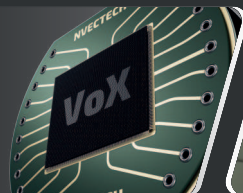
Updated controls:
Even stronger, more
comfortable and sensitive.

New altitude and
temperature sensors:
Additional analysis environment.



Reinforced robust housing:
High degree protection of the
critical elements.

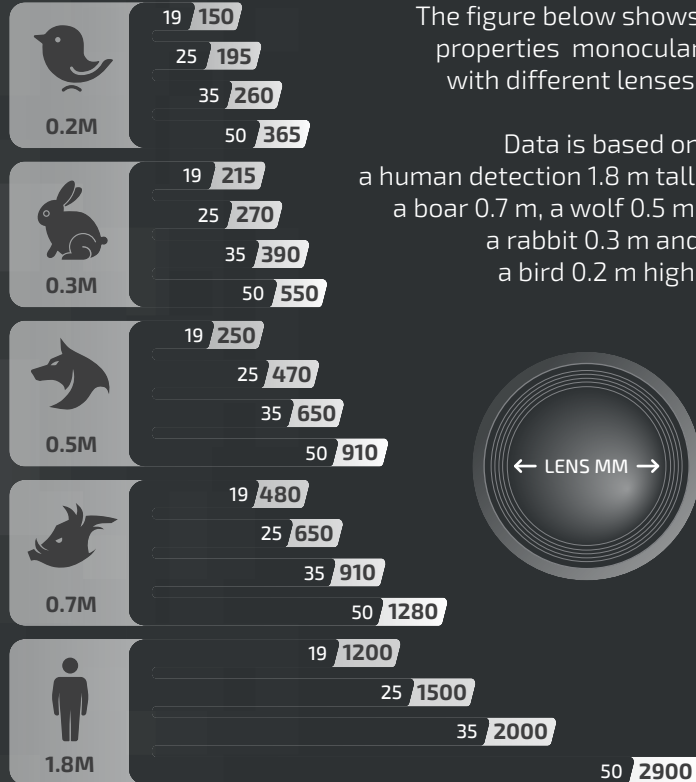
The new most
sensitive matrix <math><18\text{mK}</math>:
(384x288px, 640x512px),
Even faster, even more sensitive.



Development:
NVECTECH (Ukraine).

DETECTION RANGE

LENS MM RANGE M



APPLICATION SCENARIOS

- Observation of animals
- Adventures in nature
- Protection of law and order
- Emergency search and rescue

WARNING

- Avoid hard objects
- Do not point the lens directly at the sun or high-temperature light sources
- Do not overuse the device cold or hot environment
- Charge the battery once every three months when it was not in use
- Make sure the Type-C cover is tight closed in the water environment
- Do not disassemble or modify the device in any way

PACKAGE CONTENT



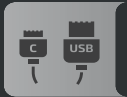
ONE MONOCULAR PATRIOT 2



TWO EYECUP (REGULAR AND CAT EYE)



ONE TACTICAL POUCH



ONE Type-C to USB CHARGING CABEL



ARM AND NECK STRAPS



ONE INSTRUCTION

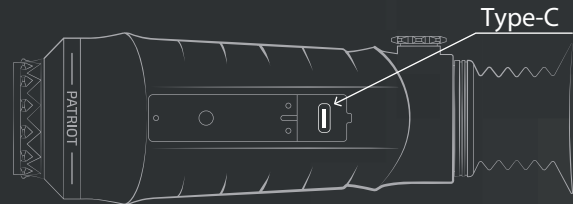
CHARGING

The battery should be fully charged before use.

Note: The battery is not user replaceable.

To charge the battery, follow these steps:

1. Remove the Type-C port cover.
2. Connect the cable from the kit to the Type-C port.
3. Insert the opposite end of the cable into the source USB power supply.



Note: 1 bulb - $\leq 20\%$ charge,
2 bulbs - $\leq 40\%$ charge,
3 bulbs - $\leq 60\%$ charge,
4 bulbs - $\leq 80\%$ charge,
5 bulbs - $\leq 100\%$ charge.

During charging, the corresponding light flashes.

BUTTONS



ON/OFF

Long press for 3 seconds to ON/OFF
Short press to enter/out standby mode



PHOTO/VIDEO

Short press - FOTO, long press - VIDEO



LEFT JOYSTICK PRESS

AI range-finder




RIGHT JOYSTICK PRESS

Pseudo-color palette



UP JOYSTICK PRESS

Zoom 



DOWN JOYSTICK PRESS

Zoom 



CENTRAL JOYSTICK PRESS

One click - shutter, double - main menu

LENSES SETTINGS

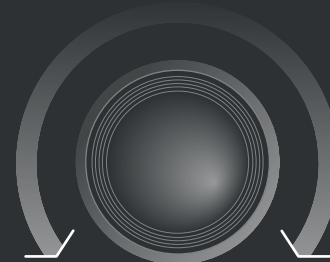
Diopter adjustment

Adjust the position while looking into the eyepiece diopter level to optimize sharpness image on the OLED display.

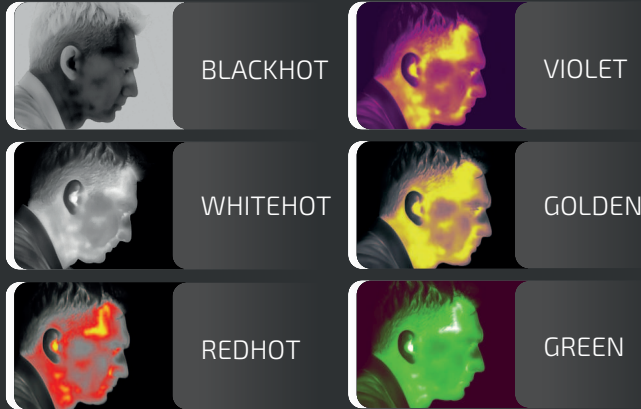


Focusing

Adjust the focus as needed lens manually.



PSEUDO-COLORS PALLETE



AI RANGE-FINDER



RIGHT JOYSTICK PRESS

Changes the pseudo-color to the following



Pseudo-color palette label

Pseudo color - the thermal distribution of objects converted into visual images using an infrared thermal imaging system and displayed on a monitor in shades of gray or pseudo color.



LEFT JOYSTICK PRESS

Activate AI Range-finder function



AI Range-finder label

AI Range-finder - Artificial Intelligence function that distinguishes targets of known size, determines the distance of these targets and notices them on the screen.

TOP MENU



- N** GPS N - North coordinate.
- E** GPS E - East coordinate.
- H** GPS H - Height above sea level in meters.
- X** Digital scale coeficient.
- AI Range-finder (activeted).
- AI Range-finder (deactivated).
- °C** The indicator of the temperature sensor in °C.
- A** Azimuth - clockwise angle relative to north.
- Compass.
- NorthEast East SouthEast South SouthWest West NorthWest North
- NE E SE S SW W NW N
- HOTSPOT (activeted)
- HOTSPOT (deactiveted)
- Stabilisation picture (activeted)
- Stabilisation picture (deactiveted)
- (80%) Battery charge level.
- 19:04 Time.

MAIN MENU



CENTRAL JOYSTICK DOUBLE PRESS

To enter the menu settings.

Note: select by moving the lever and short press the lever to confirm the selection.



IMAGE

Thermal image processing settings.



RETICLE

Adjusting the reticle properties.



WLAN + FILE

Wireless connection and saved files.



SETTINGS

General settings of monocular.



SENSORS

Monocular sensor settings.



SYSTEM

Basic settings and system lock.



IMAGE Thermal image processing settings.

BRIGHTNESS

Brightness of the picture.

SHARPNESS

Sharpness of the picture.

NOISE

Noise level of the picture.

CONTRAST

Contrast of the picture.

MENU


Brightness of the menu buttons.

SHOW MENU

Show or hide the top menu.

MODE

Image enhancement mode - WDR or OBJECT.

 **RETICLE** Adjusting the reticle properties.

RETICLE
ON/OFF the reticle.

BRIGHTNESS
Brightness of the reticle.

POINT
Color of the central point of the reticle.

TYPE
Form of the reticle.

COLOR
Color of the reticle.

XY
Налаштування розташування сітки.


 **WLAN + FILE** Wireless connection and saved files.

Makes monocular
position visible!!!

HOTSPOT
ON/OFF wireless connection.

PHOTO
Saved photos.

VIDEO
Saved videos.

 **SETTINGS** General settings of monocular.

PIP
ON/OFF picture in picture function.

TRECKING
ON/OFF function that marks the hottest areas.

FIXPIXEL
Fixes damaged pixels on the thermal imaging matrix.

DISPLAY
Brightness and color of the monitor backlight.

JOYSTICK
Adjustment of the joystick sensitivity.

BATT. INDIC.
Set the operating mode of the battery level indicator.

SP
Stabilisation picture (vibration compensation).

SENSORS Monocular sensor settings.

GPS

ON/OFF GPS and separately height above sea level.

TEMPERAT.

Set the operating mode of the temperature sensor.

ORIENT.

ON/OFF compass and separately azimuth.

CORRECTION

Change mode of the shutter - auto or manual.

RANGING

Changes mode of the Range-finder (AI or MIL).

SYSTEM Basic settings and system lock.

UPDATE

Update software.

RESET

Reset monocular to factory settings.

DATE/TIME

Set the time and date.

LANGUAGE

Set the language.

BLOCK

Set the password to start the monocular.

UVC

Image transfer through the computer.

APPLICATION

Use application that you can find in the AppStore or PlayMarket.

FUNCTIONALITY

The application allows you to control the device in real time, view photos and video recordings and share them.

Fix target coordinates and share them (if the device supports this function or manual).

You can also find other NVECTECH products in the application.

SPECIFICATION

MODELS	PATRIOT 2	L19	L25	L35	L50	H50	L50 PRO
MICROBO LOMETER	RESOLUTION	384X288				640X512	384X288
	PIXCEL PITCH	12μm					
	NETD	≤18mk@300k					
	SPECTRAL RANGE	8-14μm					
	FRAME RATE	50Hz					
OPTICS	OBJECTIVE LENS	19mm (F0.8)	25mm (F0.8)	35mm (F0.8)	50mm (F0.9)		
	FOV	13.8° x 10.4°	10.5° x 7.9°	7.5° x 5.6°	5.3° x 4.0°	8.8° x 7.0°	10.5°x7.9/ 5.3°x4.0°
	MAGNIFICATION	1.8X	2.4X	3.3X	2.8X	2.8X	2.4X-4.8X
	DIGITAL ZOOM	1 - 4X continuous zoom					
	EYE RELIEF	40mm					
	EXIT PUPIL	6mm					
	DIOPTER	±5D					

MODELS	PATRIOT 2	L19	L25	L35	L50	H50	L50 PRO
DISPLAY	TYPE	AMOLED					
	OLED COLORS	6					
	DISPLAY SIZE	0.39inch					
	COLOR PALETTE	6					
	IMAGE MODE	WDR (Wide Dynamic Range) Mode					
BATTERY	BATTERY TYPE	Internal high capacity lithium ion (18650 x 2)					
	BATTERY LIFE	Continuous working time ≥20h					
INTERFACE	TYPE-C	Supports battery charging, data transfer, UVC video output					
	WIRELESS	Hotspot connection, App remote control					
ENVIRONMENT	WORK TEMPER.	-25°C — +50°C					
	IP RATING	IP67					
	SIZE	221x66x67	224x66x67	241x73x73			
ACCESSORY	ACCESSORIES	USB data cable, Wrist strap, Protective bag, User manual					

MODELS	PATRIOT 2	L19	L25	L35	L50	H50	L50 PRO
FUNCTION	FOTO/VIDEO PLAY				YES		
	AI DIST. MEASURE.				YES		
	MIL DIST. MEASURE.				YES		
	RETICLE				YES		
	INBUILD MEMORY				64GB		
	PIP				YES		
	HEAT TRACK				YES		
	GPS				YES		
	TERMOMETER				YES		
	MENU REC.				YES		
	REAL TIME REC.				YES		
	AZIMUTH				YES		
	COMPASS				YES		
	HEIGHT SENSOR				YES		

NVECTECH

Model:

Serial number:

Date of sale:

Seal and signature of the seller:

Kosmichna st. 49-g,
Dnipro, Ukraine

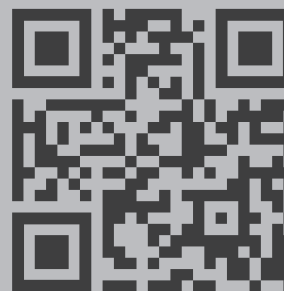
site: www.nvectech.com
e-mail: info@nvectech.com

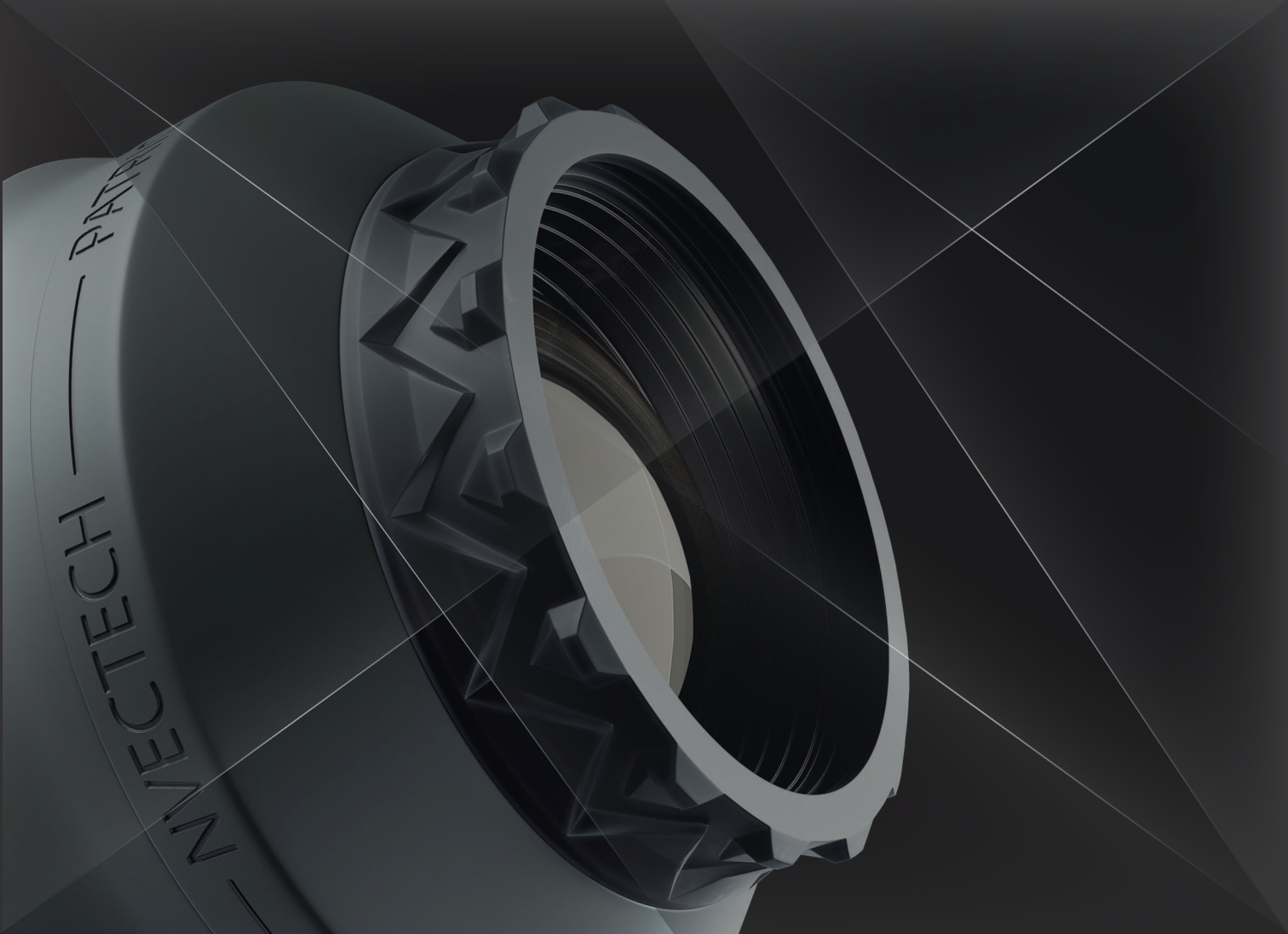
Manufacturer: NVECTECH LLC

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Warranty 2 years!

www.nvectech.com





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