

NVECTECH



Instructions for the
thermal imaging monocular

PATRIOT

PATRIOT
FOR THE SAKE OF VICTORY



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INTRODUCTION

DEVICE DESCRIPTION

NVECTECH PATRIOT thermal imaging monoculars were created specially for defenders of Ukraine. All basic requirements were taken into account for thermal object detection in bad weather conditions and resistance to external factors. These monoculars have a locking function friend-foe. So that noone could use it except the owner. PATRIOT has the fastest processor that processes the signal from the matrix 2 times faster than a conventional thermal imager. Ultrasensitive matrix ~20 mk, innovation of 2023, was implemented. The application for smartphones was developed together with DEVCONSTRUCT (Turkey). Each monocular designed by NVECTECH (Ukraine) and DEVCONSTRUCT (Turkey) has absorbed the best components on the world market.

FEATURES



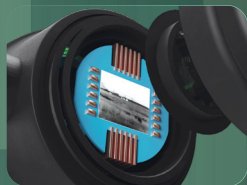
Strong aluminum frame.
Withstands high load.

Joint development:
NVECTECH (Ukraine) and
DEVCONSTRUCT (Turkey).



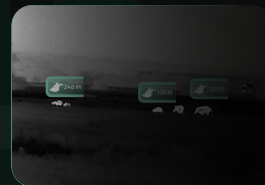
Working time over 12 hours.
Supports all types bank tellers.

**Convenient menu and
Software.**
For Android and iOS
developed by DEVCONSTRUCT.



**Ultraclear display
SONY 1024x768 OLED
frost resistant.**
Maximum brightness
image. VOx technology.

Range-finder:
With automatic definition
distance to several goals.



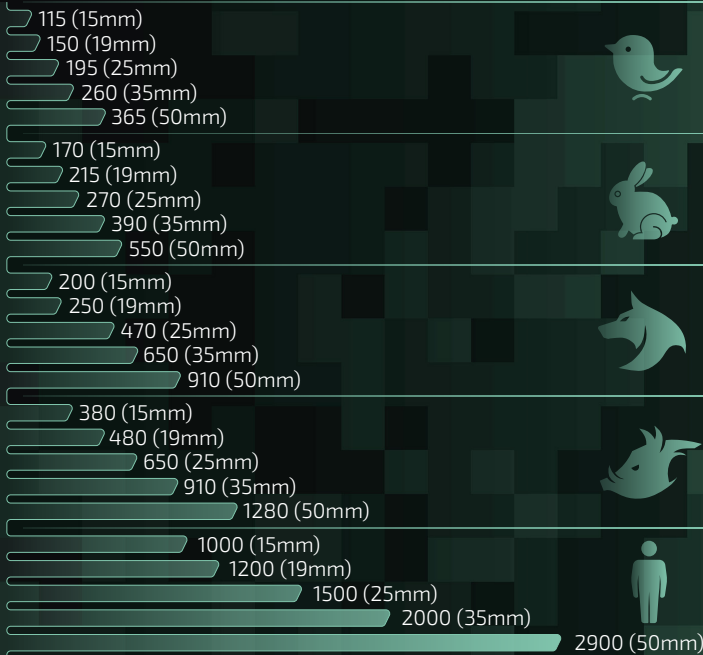
**The most sensitive
matrix ~20mK (384x288px).**
Exclusively for NVECTECH.

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



Detection range

The figure below shows a comparative range performance of a monocular with different lenses configurations. Data is based on human detection 1.8 m tall, boar 0.7 m tall, wolf tall 0.5 m, a rabbit 0.3 m high and a bird 0.2 m high.



Application scenarios

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

Reservation



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 USB cover is tight closed in the water environment.



Do not disassemble or modify the device independently in any way.

PACKAGE CONTENTS

Monocular	1 pc.
Lace	1 pc.
USB cable	1 pc.
Video cable	1 pc.
Bag	1 pc.
Instruction	1 pc.



Monocular
1 pc.



Lace
1 pc.



USB cable
1 pc.



Video cable
1 pc.



Bag
1 pc.



Instruction
1 pc.

OPERATION

Battery 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 USB port cover.
2. Connect the cable from the kit to the USB port.
3. Insert the opposite end of the cable into the source USB power supply.



Note: When the charging indicator on the device turns red, it means you need to immediately charge the device. The indicator lights red when it charges, and turns green when charging will complete. After it transforms to green, stop charging.

Turn on/off.



Hold down the POWER button within a second.



Hold down the POWER button within four seconds.



Button and input functions



	Press and hold	Press	Double press
	Feeding on/off	Regime expectation	
	Remove video	Do photo	
	⊕ Increase ⊖ Reduce	Colors Distance	Main menu

Lens 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



Scaling



Colors

White



Black



Red



Green



Gold



Violet



Push the lever to the right to change the pseudo color.

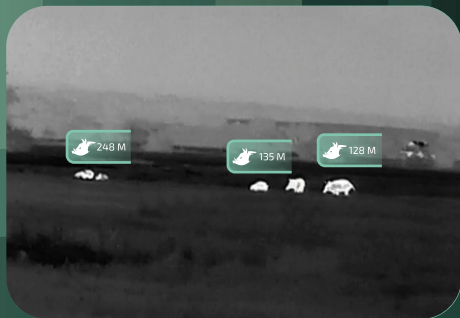


By default, there are six color palettes. Unwanted colors can be turned off in system settings.




Distance determination


Press the switch to turn it on left or off the same way.



Distance measurement function

Capture/Record

Press  to take photos. Badge photo in the upper left corner will flash once.


Press  and hold to record video. A flashing recording icon will appear at the top in the left corner, and the recording will begin. Click again and hold to stop recording.

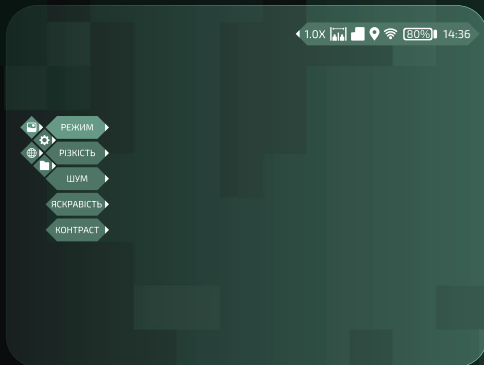
SETTINGS

Press the lever twice to enter the menu settings.


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

Image settings

Press  to enter the setting menu image. There are five submenus for setting image, it is "Mode", "Sharpness", "Noise", "Brightness" and "Contrast".



System settings

Press  to enter the options menu systems. Select by moving the lever, and for confirm by briefly pressing the lever.



- РЕЖИМ** → **ОБ'ЄКТ** Improves target detail in bad weather conditions.
- РЕЖИМ** → **WDR** Detailing the background and purpose of wide dynamics.
- РІЗКІСТЬ** → **0 - 10** Makes the image clearer. The recommended value is 5.
- ШУМ** → **0 - 10** Makes the image cleaner. The recommended value is 5.
- ЯСКРАВІСТЬ** → **0 - 10** Image brightness. The recommended value is 5.
- КОНТРАСТ** → **0 - 10** Image contrast. The recommended value is 5.

- ВІДСТАНЬ** → **AI** Distance measurement in AI
- ВІДСТАНЬ** → **MIL** Distance measurement in MIL
- PIP** Picture in picture The second appears in the image - fragment enlarged twice.
- X-Y** Positioning of the sight. May be set and saved.

СІТКА ▶ 0 - 7 Sets the reticle style.
0 - no sight

ВІДТІНОК ▶ Blue, gray, violet - available colors.

ЕКРАН ▶ ЯСКРАВИТЬ Adjusts screen brightness.

КОРЕКЦІЯ ▶ РУЧНА/АВТО Matrix update for image enhancement.

ООНОВЛЕННЯ Updates the system.

СИСТЕМА ▶ СКИНУТИ Resets all saved settings to initial.

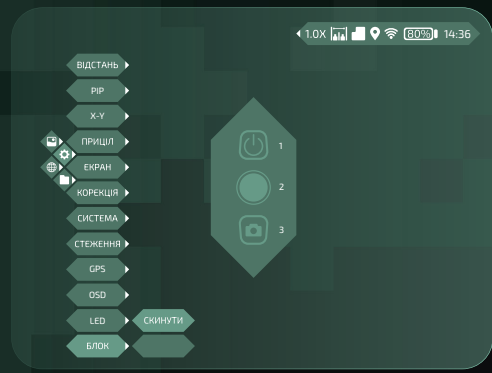
BLINDPIXEL Removes dead pixels.

СТЕЖЕННЯ ▶ Indicates the target with the highest temperature.

GPS Provides coordinates and time.

OSD ▶ Disables the top menu.

LED ▶ Turns off the LED.



БЛОК ▶ Blocks the device with a set of serial control button presses.



APPLICATION

To control the device and view photos and video in real time use application that you can find in the Appstore or Playmarket.



Playmarket



AppStore



14:36 Indicates the time.

80% Battery charge.

Wi-Fi Network signal strength.

Geolocation.

Memory card.

Signal strength Determining the distance to the object.

1.0X Multiplicity of increase.

MODELS



NVECTECH models	PATRIOT L19	PATRIOT L25	PATRIOT L35	PATRIOT L50	PATRIOT Pro L50	PATRIOT H50
Lens	19mm (F#0,9 man. focus)	25mm (F#1,0 man. focus)	35mm (F#1,0 man. focus)	50mm (F#1,0 man. focus)	25-50mm (F#1,0 man. focus)	50mm (F#1,0 man. focus)
Field of view angle	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°
Resolution/ pixel spacing	384x288/12um					640x512/ 12um
NETD	~20mK@300k					~30mK@300k
Optical Zoom	1x				2x (Dual Field of View)	1x
Detector type	Vox microbolometer					
Frame rate	50Hz					
Spectral range	8~14µm					
Digital zoom	1x ~ 6x continuous					

NVECTECH



NVECTECH models

PATRIOT L19

PATRIOT L25

PATRIOT L35

PATRIOT L50

PATRIOT
Pro L50

PATRIOT H50

Noise reduction

3D DNR

Image enhancement

IDE, HDR

Display

OLED SONY 0,39 inches resolution 1024x768

Diopter adjustment

-5 ~ +5

The diameter of the outlet opening

40mm

Reticle

6+, adjustable coordinates

Memory cards

16Gb

32Gb

16Gb

Heat tracker

Tak

Weight

470 gr

600 gr

470 gr

NVECTECH



NVECTECH models

PATRIOT L19

PATRIOT L25

PATRIOT L35

PATRIOT L50

PATRIOT
Pro L50

PATRIOT H50

Photo, recording, playback

Yes

GPS

Yes

Battery type

Internal Li-ion battery (18650 Li battery x 2)

Battery life

Continuous operation time \geq 12 hours.

Connection

Type-C port for charging, reading data, outputting analog video

WI-FI

Two-way Wi-Fi connection, NVECTECH APP remote control

Working temperature

-25°C ~ +55°C

Protection level

IP67, 1 meter drop resistance

Size

67mm x 63mm x 190mm

Модель/Model:

Серійний номер/Serial number

Дата продажу/Date of sale

Печатка та підпис продавця/
Seal and signature of the seller

Kosmichna st. 49-g,
Dnipro, Ukraine

Україна, м. Дніпро,
вул. Космічна 49-г

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

Manufacturer: LTD NVECTECH

+38 093 698 11 67
+38 098 758 75 85
+38 063 785 78 55
+38 095 761 13 92

Warranty 2 years!

www.nvectech.com



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