



Operating Manual

V1.0

# PFN Series

Multipurpose Night Vision  
Monocular

PFN384+/PFN640+

Multipurpose night vision monocular is a handheld, helmet, clip-on, thermal scope multipurpose equipment, which is used for individual reconnaissance. The night-vision instrument is light in weight, small in size, easy to carry, and has the characteristics of long working time and good concealment.

**WARNING!**

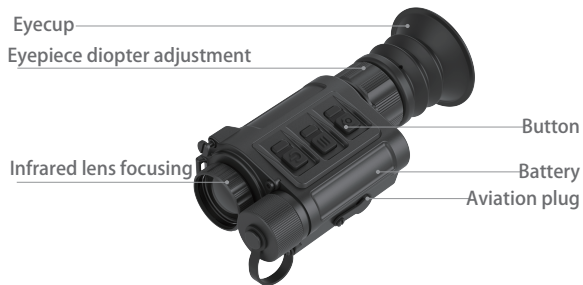


Wavelength: 545nm  
Maximum power: <5mW







# Parameter

	PFN384+	PFN640+
Detector	384 × 288/17 μ m	640 × 512/12 μ m
Lens	f25mm	
Eyepiece	14 <sup>x</sup>	
Human recognition	420m	600m
Vehicle recognition	750m	1070m
NETD	≤40mK	
Frame rate	50Hz	
FOV	14.6° × 10.9°	17.2° × 13.7°
Exit pupil distance	15mm ~ 35mm	
Diopter	-5~5	
Picture mode	White、Black、Red、Color	
E-zoom	1X、2X、4X	
Battery life	≥4h	
Battery type	1X18650/1X18700	
Display	1024X768,0.39inch	
Storage	64G	
Interface	Picatinny Rail、Helmet mount	
Weight	≤360g	
Dimensions (mm)	115 × 65 × 48	
IP rating	IP67	
Operating temperature	-40°C~60°C	
Storage temperature	-50°C~70°C	

## Parts

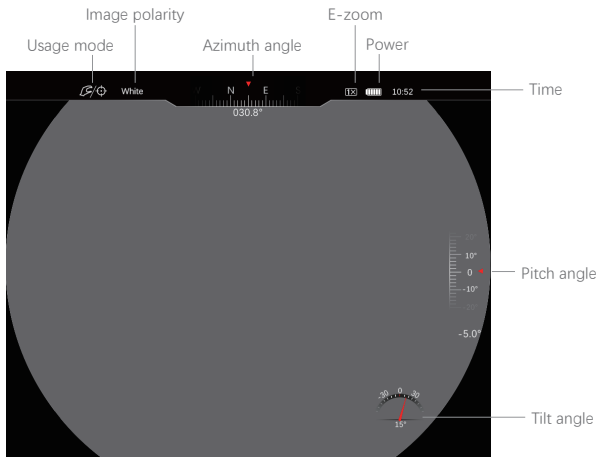


## Button

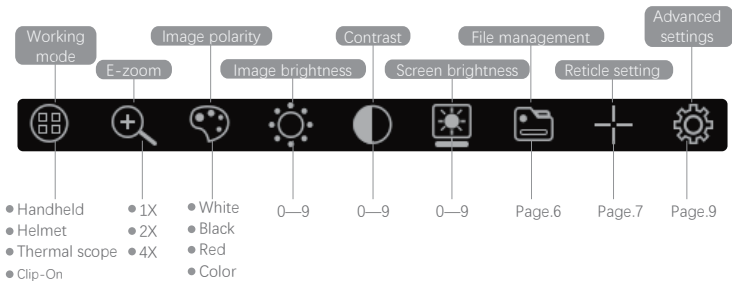
Key	Current	Short press	Long press
	Off	—	On
	Main interface	E-zoom	Off
	Menu	Switch options	—
	Reticle/Blind pixel correction	Move 1 pixel in the positive direction	Move 10 pixel in the positive direction
	Main interface	Enter menu	Switch mode
	Menu	Select	Return
	Main interface	Photo	On/Off record
	Menu	Switch options	—
	Reticle/Blind pixel clear	Move 1 pixel in the positive direction	Move 10 pixel in the positive direction
	Main interface	On/Off sleep	Adjust laser point
	Main interface	Shutter correction	Background correction
	Main interface	—	On/Off laser point

**Note:** When performing image background correction, make sure the lens cover is closed.  
Laser point is optional, the position of laser point has been adjusted before leaving the factory.

# Observation



# Menu



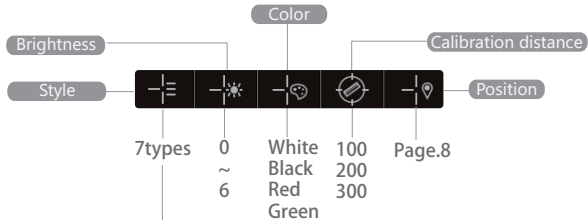
Under Helmet and Clip-on mode, the length and width of screen display is reduced to 70% of average size.



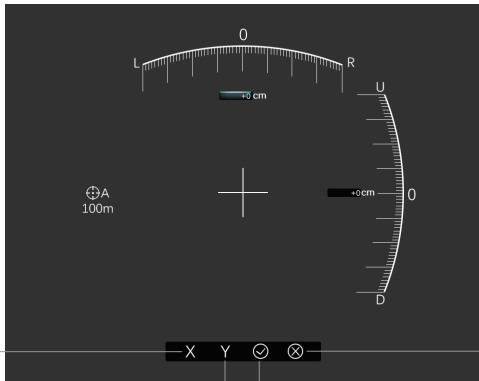
## File management





# Reticle settings

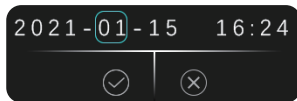
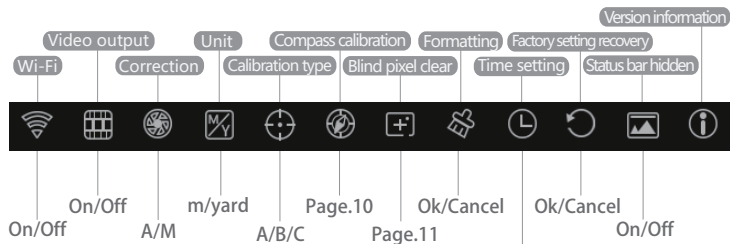


## Position



Before entering the X/Y direction selection, long press   to freeze the screen;  
After entering the X/Y direction selection, short press to move 1 pixel, long press to move 10 pixels.

## Advanced settings



## Compass calibration



Under compass calibration interface, calibrate the compass by rotating the device over  $360^\circ$  along the X, Y and Z axes respectively as icon demonstrated.

- a) The rotation direction is not limited;
- b) The rotation sequence of X, Y and Z is not limited, but the operation must be completed in all three directions ;
- c) The rotation axis is centered on the product itself ;
- d) The rotation range must be greater than  $360^\circ$ .

## Remove blindness



X axis move

Y axis move

Confirm blind pixel

Confirm to cancel

Confirm to exit

Cancel blind pixel

## APP introduction

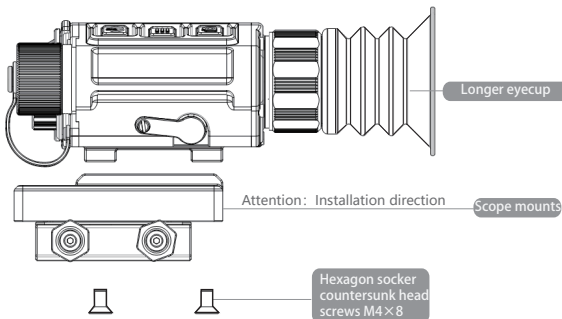
You can go to the website ([www.xinfared.com](http://www.xinfared.com)) or search the infiray outdoor in the app store to download and install the app, or scan the QR code below for free download.



When Wi-Fi is turned on, search for the Wi-Fi named "INFRARE\_XXXX" on the mobile device, where XXXX is a 4-digit serial code consisting of numbers and letters. Select the Wi-Fi, enter the password and connect, the initial password is 123456789.

## Install accessories: Handheld mode and thermal scope mode

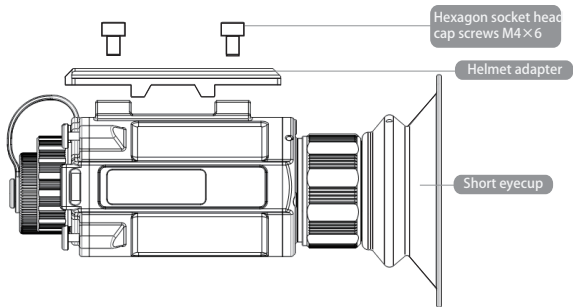
- **Install eyecup:** It is recommended to use a longer eyecup for handheld mode and thermal scope mode.
- **Install scope mounts:** The thermal scope mode and Clip-on mode need to install the scope mounts.





## Install accessories: Helmet mode and Clip-on mode

- **Install eyecup:** shorter eyecup for helmet mode and Clip-on mode.
- **Install helmet adapter:** The helmet adapter needs to be installed in helmet mode.



## Maintenance

- Switch off timely when the observation is finished or no object is detected for long time, so as to prolong the battery service time.
- Lens is the critical optical component. Avoid oil and chemical contamination which will damage the lens during installation and usage. After the usage, cover the lens cap.
- Remove the battery and place the device in packing case during the transportation or unused time.
- The device shall be stored in cool and dry environment.
- Clean the device enclosure with clean, soft and dry lint.
- Chemical resolution is not allowed.
- Clean the lens only when there is stain/dirt with special lens cleaning cloth. Don't clean the lens directly with hands. Finger print will stain lens and acidic material on skin will damage the lens surface.
- Power on and calibrate the device every half year.



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**RoHS**



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