

# MILESEEY®

## NV20 Digital Night Vision



User Manual

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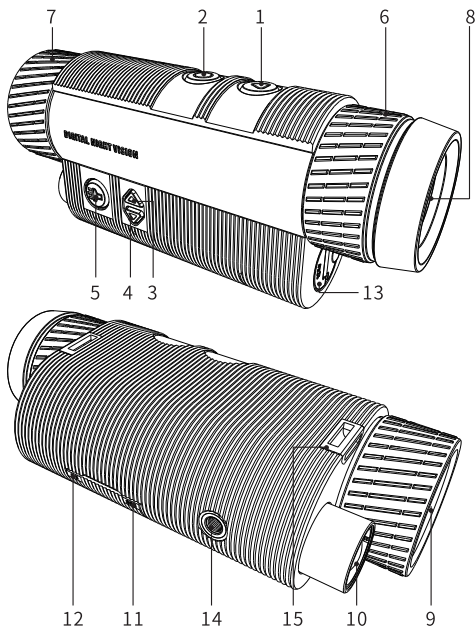


## Product Overview

Thank you for choosing Mileseeey Digital Night Vision, please read the user guide carefully before use.

- Mileseeey NV20 series is a night vision device for observing objects in dark or low light. The low light observation distance is infinite, and it can reach 200 meters in full darkness.
- The NV20 series can be used normally during the day and night, with functions such as photographing, video recording, and playback. The optical magnification is 5 times and the electronic magnification is 8 times.
- The NV20 series is the best auxiliary tool for human vision extension and is a precision photoelectric instrument for observing targets at night. It can work in extremely low light environment.
- The device is equipped with infrared lighting, suitable for use in dark environment.
- When it is fully dark, turn on the auxiliary lighting, and adjust the brightness of the auxiliary lighting source according to the distance of the observed object. The night vision device uses a low-light sensor. When the environment has a certain light source (such as street lights, moonlight), you don't need to turn on the auxiliary light source, just adjust the focal length of the objective lens and the brightness of the screen to make the observation clear.

## Appearance




**1. Power switch** 

Press and hold on 4.5s to Switch on;

Press and hold on 2s to Switch off.

Short Press: Shoot/Record/Pause/Confirm

**2. Mode Button** 

Press and hold 2 Seconds: switch photo/video/album mode


Short Press: Digital Zoom (Loop)

**3. Up Keypad** 

Digital Zoom Up / Move Up

**4. Down Keypad** 

Digital Zoom back Out/Move Down

**5. Light Button** 

Long Press: Enter/Exit the Settings Menu

Short Press: Adjust the Auxiliary IR (Infrared) Illuminator Level

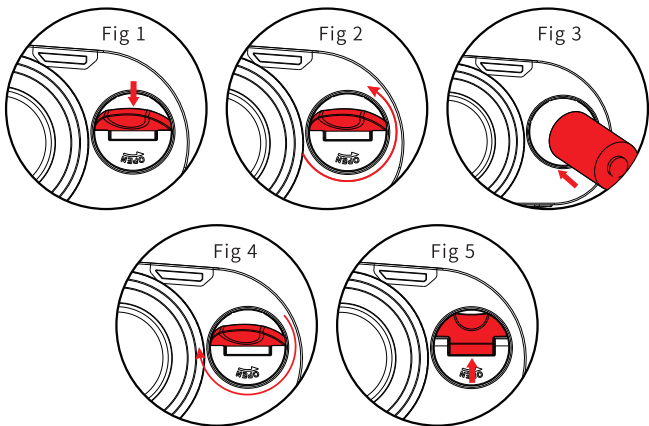
**6. Eyepiece adjust Handwheel****7. Objective lens focusing handwheel****8. Eyepiece****9. Objective Lens****10. Infrared lens****11. USB Port****12. Micro SD/TF Card Slot****13. Battery Compartment****14. Tripod Screw Hole****15. Wrist Strap Hole**

## Battery Installation

▪ This night vision device uses 2000mAh/3.7V lithium battery. Remove the battery compartment cover cap by turning it counter-clockwise, Insert 2000mAh/3.7V lithium battery (positive side up) and then tighten the battery cover clockwise.

**⚠ WARNING:** Do not tear off the plastic protective film of the battery pack, otherwise it may cause an explosion.

**⚠ WARNING:** If the battery plastic protective film is broken, please stop using this battery, it may cause explode or leak.



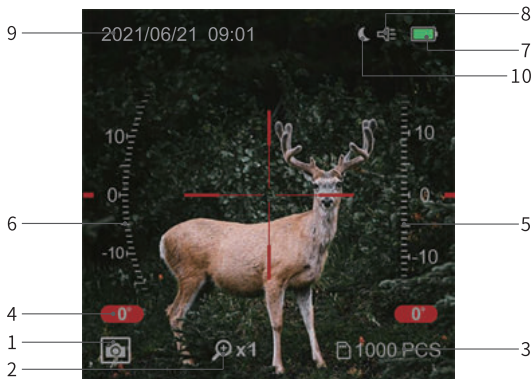
## Power on

- Long press the power button, when the screen lights up can be seen in the eyepiece, it means switch-on. The normal icon is displayed on the screen such as picture 1, it enters the normal working state.
- After powering on, you can enter the observing (photo) Mode, and take observation and photo-shooting.

## Power off

- Long press the power button to turn off the machine, no matter which mode it stays in.



## Icon description



Picture 1: Screen and infrared light adjust display

- 1.Photo mode
- 2.Magnification (can be magnified 8 times)
- 3.Number of remaining photos
- 4.Current angle
- 5.Pitch value
- 6.Scroll angle
- 7.Battery status display
- 8.Infrared light (zero one two three gears)
- 9.System time display
- 10.Night Mode





## Scenery observation

- In the observation (photograph) state, aim the objective lens at the scene to be observed and watch the display screen from the eyepiece.
- Adjust the eyepiece handwheel until the screen turns clear.
- Adjust the objective lens handwheel until the observation scene turns clear
- The machine will automatically fine-tune the brightness of the display according to the average brightness of the scene on the center of the screen.
- Up  Down  Adjustment key, Electronic zoom can be realized, and the range of image electronic magnification is 0-8 times.
- When the ambient light is relatively bright, turn off the auxiliary infrared light source (turn off the auxiliary infrared light source to save battery power)
- When the ambient light is very dark and the scene is unclear, please turn on the auxiliary infrared light source and

adjust the brightness of the light source to make the observation clear.

- Turn on the auxiliary infrared light source, and observe (photograph, video) are automatically switched to black and white mode.

## Night Mode / IR Illuminator adjust Mode

Under observation (photo, video), short press  button, night mode is turned on (as shown in Fig 1), the night mode icon is displayed in the upper right corner of the screen. Short press button  again, infrared fill light is turned on (as shown in Fig 2), the infrared fill light icon is displayed in the upper right corner of the screen. Short press  button, the infrared light brightness will change between 1-3 gears (as shown in Fig 2-4), gear 3 is the highest brightness. When it is in gear 3, short press button  again, infrared fill light is turned off.

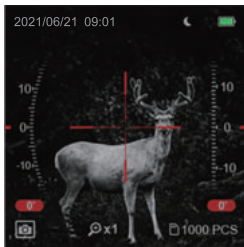


Fig 1



Fig 2





Fig 3




Fig 4

### **⚠ Warning!**

When you do not need to use the auxiliary infrared, please turn off the auxiliary infrared light source to save battery power. When the infrared auxiliary light source is turned on, no objects can be blocked in front of the light source.

## Photo mode




After turn on, the system automatically enters the observation (photo) mode, you can observe the scenery and take pictures of the scenery you want to keep.

Every time you press the  button, a shot is taken, and the prompt “OK” is displayed after the shot, and the photo is automatically saved in the Micro SD card.

The maximum number of photos that can be taken on the screen is 1024. The actual number of photos that can be taken will vary slightly depending on the memory size.



## Video mode






Long press  button, switch to recording mode, the video icon is displayed in the upper left corner of the screen. Short press  button start recording (prompt "START") The time in the lower right corner of the screen starts counting, short press  button again to stop recording (Prompt "STOP"), Video files are automatically saved. The time displayed in the bottom right corner after stopping recording is the remaining recording time.

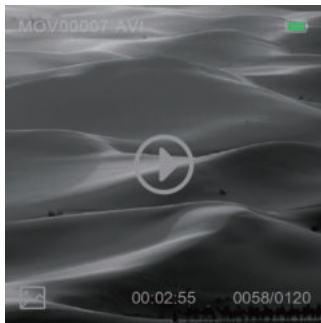


Note: During the recording process, please do not power off the machine suddenly, otherwise it may cause video data errors or fail to save.

Solution: Connect to a computer, format the memory or delete damaged files.

## Replay

Long press  button, switch to playback mode, the playback icon is displayed in the lower left corner of the screen. Short press  button select a document; Short press  play the current video file or view photos. In playback mode long press , then short press  can switch back and forth to delete the current photo or video, or delete all. Short press  button to confirm delete.



Note: In the playback state, the screen brightness and auxiliary lighting source adjustment functions cannot be used.

## Menu Settings

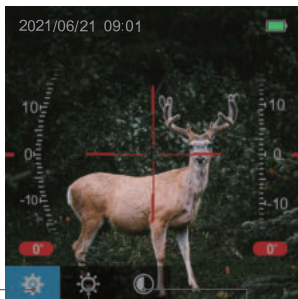


Fig 1

Setting

Screen Brightness

Contrast

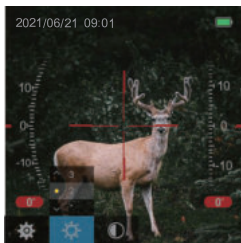


Fig 2

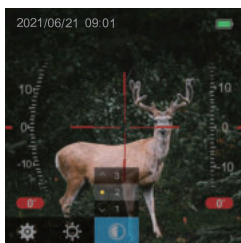

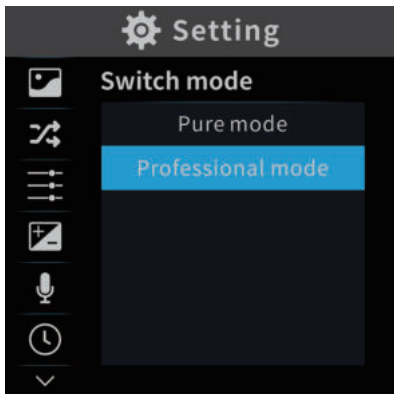











Fig 3

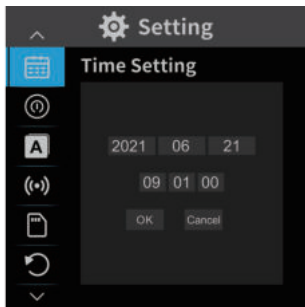
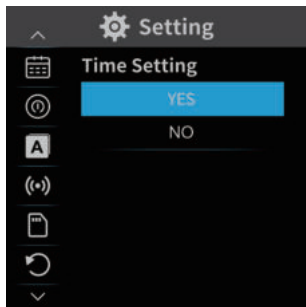
Long press  button, pop up system settings menu (as shown in Fig 1). Short press , you can switch the menu options, short press  to enter the setting sub-item (as shown in Fig 2-3). Short Press   to choose the option, short press  to confirm. Long press  to exit system menu settings.






## Switch mode



Long press  button, pop up system settings menu. Short Press  to enter setting options, short press   button to select Disp Mode, short press  button to confirm, short press   button to switch between Pure mode and Professional mode, short press  to confirm. Long press  to exit system menu settings.

## Date and Time



Long press  button, pop up system settings menu. Short press  to enter setting options, short press  button to select Time Setting option, short press  button to switch between year/month/day/minute/second, press  button to adjust the value, press the power button to confirm.





## Menu description

Menu	Options	Description
Image quality	1M	Choose the size of the image to save
	2M	
	3M	
Switch mode	Pure mode	
	Professional mode	
White Balance	Auto	Choose the corresponding option according to different weather
	Sunlight	
	Cloudy	
	Tungsten	
	Fluorescent	
EV	2	According to different lighting environment, adjust the exposure to get better photo effects
	1	
	0	
	-1	
	-2	
Audio	Off	Turn on/off recording when shooting
	On	
Date Tag	Off	Keep time mark on files when taking photos and videos
	On	

Time Setting	Yes	Set system time
	No	
Auto Power-Off	Off	Shut Down “Auto Power-Off”
	One Minute	Auto Power Off in 1 minute
	Three Minutes	Auto Power Off in 3 minutes
Language Setting	English	
Flicker	50Hz	
	60Hz	
Format	No	Format SD card
	Yes	
Reset system	No	Menu parameter restore factory value
	Yes	

## Connect to the computer

- This device is equipped with a USB2.0 interface. Insert one end of the USB cable into the USB interface of the machine, and connect the other end to the computer device. At this time, only the battery in the unit is charged.
- Long Press  button 4.5s to switch on, then long press  button 3s, a function screen appears: memory/PC camera/video mode. Select "Memory", the machine is used as a mobile storage device, the computer will automatically recognize the machine, and read the contents of the TF card in the machine through the computer.
- Download the "pc camera software" from internet (such as: potplayer) and Install it to computer.
- Restart the machine, select "PC Camera" to enter the camera mode, open the PC camera software installed in the computer, and perform live video/photo etc operations.
- When connecting to a computer, if you select "Video Mode", you can observe the scene through the unit, and charge the battery in the unit through the USB interface.

## Auto Power Off

In any state, if no operation is performed within 3 minutes, the machine will automatically turn off. (You can set the automatic shutdown time and turn off the automatic shutdown function in the menu settings).

It will not auto power off under recording and playback status.

## Battery selection

This device uses large capacity 3.7V rechargeable 2000mAh/3.7V lithium battery.

When charging the battery for the first time, ensure that the charging time reaches more than 10 hours to ensure the best capacity of the battery.

## External power supply

- This machine is equipped with a USB data cable, when there is an external power adapter/computer port, it can be charged through the USB port.
- When there is an external power supply, it will charge the internal battery.

## Basic parameters

Category	Item	Parameter value
Optical performance	Optical Magnification	5X
	Objective size	35 mm
	Field of view	7°x3.9°
	Eyepiece adjustment range	±0.5 diopter
	Low light observation distance	2m~∞
	No light Total black observation distance	~200m
	Sensor	Low illumination HD 1/3 CMOS
Electronic performance	Pixel	130W
	Pictures	1280*720
	Video	720P
	Display Screen	1.54 inch
		320X320
Digital Magnification	8X	
power supply	Operating Voltage	3.7V DC
	Replaceable battery	2000mA rechargeable lithium battery

power supply	Charger	5.0V/700mA Adapter
other	Size (length*width*height)	178x72x78mm
	Weight	300g

## Package Lists

Night Vision Monocular	1	8GB Micro SD Card	1
USB data cable	1	Shoulder Strap	1
Carrying Case	1	Hand Strap	1
Lens Cleaning Cloth	1	2000mA lithium battery	1

## Using Environment and Precautions

The device should be stored in a soft case, and the operating environment should be at a temperature of -5~40°C, and the relative humidity should not exceed 80%.

The device should be stored in a clean and dry place to avoid moisture, mold, heavy pressure, mechanical damage, humidity and direct sunlight.

Avoid using in the rain or fog, avoid dropping or shocking.

When the screen on the LCD does not light up, it indicates that the voltage is too low, and it needs to be charged in time.

If you need to clean objective lens, eyepiece, and the optical surface of the laser illuminator, please blow off the small sand and dust firstly, then wipe the surface with a soft cloth.

If the night vision device is not used for a long time, please keep the battery charged frequently to prevent the rechargeable battery from failing.

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