

**FNIRSI™**

**NVS-20**

## **4K DIGITAL NIGHT VISION DEVICE USER MANUAL**



## NOTICE TO USERS

- This manual provides a detailed introduction to the product. Please read this manual carefully ensure obtain the best state of the product.
- Do not use the instrument in flammable and explosive environments.
- Waste batteries and instruments cannot be disposed of together with household waste. Please dispose of them in accordance with relevant national or local laws and regulations.
- If there are any quality issues with the device or if you have any questions about using the device, please contact “FNIRSI” online customer service and we will solve it promptly.

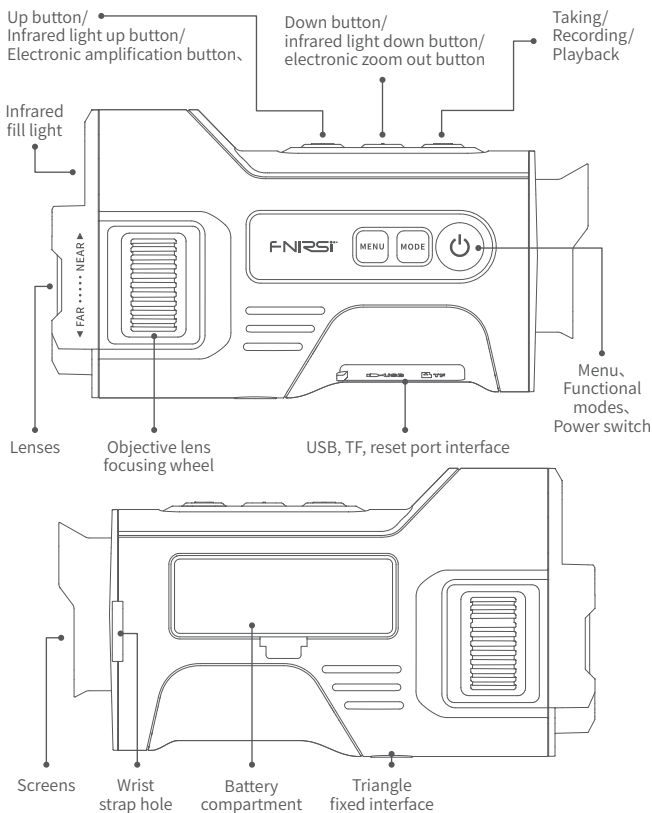
## 1.PRODUCT INTRODUCTION

This device is a night vision instrument used for observing objects in pitch black or weak light. The observation distance in weak light is not limited, and can reach 300 meters in pitch black environments. Equipped with USB interface and TF card slot, supporting firmware updates and shooting storage. Fully functional, this color screen can be used normally during the day and night, with functions such as taking photos, shooting, playback, and electronic zoom up to 6x. This device is the best auxiliary tool for human night vision extension.

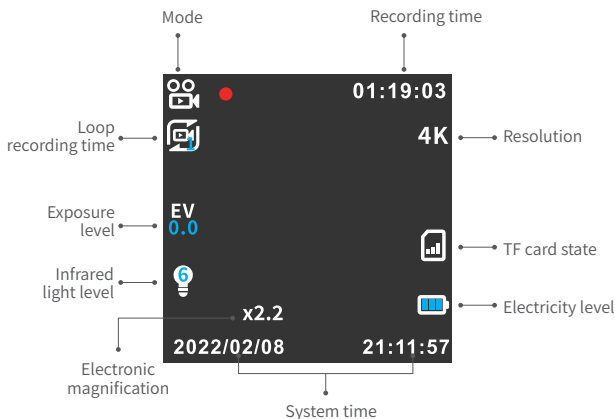
## 2.NOTICE

- It should be stored in a clean and dry place, avoid moisture on the lenses heavy press, device damage, damp.
- Try to avoid rainwater and mist, and prevent falling, and colliding.
- When the LCD image shows low battery, it needs to be charged in time.
- If not frequently used, please keep the battery regularly charged to prevent battery failure.

### 3.DEVICE STRUCTURE INTRODUCTION



## 4.PANEL INTRODUCTION



## 5.BUTTONS & FUNCTIONS INTRODUCTION

| Button | Operating mode | Function                                                     |
|--------|----------------|--------------------------------------------------------------|
| +      | Short press    | Infrared light brightness compensation+/up direction key     |
|        | Long press     | Electronic magnification+                                    |
| -      | Short press    | Infrared light brightness compensation -/ down direction key |
|        | Long press     | Electronic magnification-                                    |

| Button                                                                            | Operating mode | Function                                     |
|-----------------------------------------------------------------------------------|----------------|----------------------------------------------|
|  | Short press    | Start of photo/video/playback                |
| <b>MODE</b>                                                                       | Short press    | Switching between photo/video/playback modes |
| <b>MENU</b>                                                                       | Short press    | Menu/Return                                  |
|  | Short press    | Screen extinction                            |
|                                                                                   | Long press     | Power on/OFF                                 |

## 6. OPERATING INSTRUCTIONS

### Installing the battery

Place a 18650 specification battery in the battery compartment of the device, pay attention to the "+" and "-" polarity markings on the battery compartment, cover the battery cover and long press the power button to turn on the device, if it cannot be turned on properly, please check if the battery is installed upside down and the battery power is sufficient.



#### Notice

Using non original 18650 batteries may result in inaccurate battery level detection!

### Observation of scenery

After turning on the device, every short press of the **MODE** will cycle through the three modes of recording, taking photos, and playback. After selecting the corresponding mode, you can press  to start recording, taking photos, or playback, and observe the clarity of the scenery from the screen of the eye mask. If it is unclear, you can adjust it according to the following methods:

- First check if the brightness is sufficient, short pressing **+**、**-** to adjust the infrared fill brightness if in the dark.
- If the brightness is sufficient but the image is not clear, you can adjust the foot pitch through the lens wheel to make the image clear. After adjusting to the clearest page, you can also long press **+**、**-** to adjust the magnification.



### Attention

Do not obstruct the infrared fill light area with any objects!

## 7.MENU DESCRIPTION

Short press **MENU** to display different mode menus and system settings in different modes. Short press to switch in sequence. The specific menu is shown in the table below:

|                |                      |                                                                                                      |
|----------------|----------------------|------------------------------------------------------------------------------------------------------|
| Recording Menu | Recording resolution | 4K (3840*2160) /2K (2560*1440) /1080FHD (1920*1080) / 720P (1280*720) /VGA (640*480) /QVGA (320*240) |
|                | Loop recording       | Off/1minute/2minutes /3minutes/5 minutes/10 minutes                                                  |
|                | WDR                  | OFF/ON                                                                                               |
|                | Movement detection   | OFF/ON                                                                                               |
|                | Date label           | OFF/ON                                                                                               |
| Playback Menu  | Delete               | Delete Current, Delete All                                                                           |
|                | Protect              | Lock Current、Unlock Current、 Lock All、 Unlock All                                                    |

|             |               |                                                             |
|-------------|---------------|-------------------------------------------------------------|
| Camera Menu | Resolution    | 36MP/32MP/30MP/24MP/20MP/16MP/12MP/10MP/8MP/5MP/3MP/VGA     |
|             | Image quality | High quality/standard/ordinary                              |
|             | Sharpness     | Strong, Standard, Soft                                      |
|             | White balance | Automatic, daylight, cloudy, tungsten filament, fluorescent |
|             | Anti-shake    | OFF/ON                                                      |
|             | Quick preview | OFF /2 seconds/5 seconds                                    |
|             | Date label    | OFF /Date/Date Time                                         |
|             | ISO           | Auto, 100, 200, 400, 800                                    |

|                 |                           |                                                                                       |
|-----------------|---------------------------|---------------------------------------------------------------------------------------|
| System Settings | Date/Time                 | YY/MM/DD 00:00:00                                                                     |
|                 | Automatic shutdown        | OFF/1minute/2minutes/3minutes/5 minutes/10 minutes                                    |
|                 | Language settings         | Chinese/Traditional/English/Japanese/Italian/French/German/Russian/Spanish/Portuguese |
|                 | LCD brightness adjustment | High, medium, and low levels                                                          |
|                 | Light source frequency    | 50HZ/60HZ                                                                             |
|                 | Exposure Compensation     | +1/3 +0.0 -1/3 -2/3 -1.0 -4/3 -5/3 -2.0                                               |
|                 | Screen saver              | OFF/1minute/3minutes/5minutes/10minutes                                               |
|                 | Format                    | TF card (delete all files)                                                            |
|                 | Default setting           | Cancel/Confirm                                                                        |
|                 | About                     | Model, Manufacturer, Version information                                              |

## 8.BASIC PARAMETERS

|             |                          |
|-------------|--------------------------|
| Voltage     | 3.7V 18650 battery       |
| Charging    | 5V/1A TYPEC              |
| Screen      | 1.54 high-definition IPS |
| Temperature | -5~40°C                  |
| Humidity    | 0-80%                    |
| Size        | 152x42x82mm              |
| Weight      | ≈ 240g                   |

## 9.OPTICAL PERFORMANCE

|                                                 |           |
|-------------------------------------------------|-----------|
| Electronic zoom                                 | 6x        |
| Objective lens aperture                         | 25mm      |
| Weak light observation distance                 | 2m-∞      |
| Observation distance of all black without light | 300m(max) |