

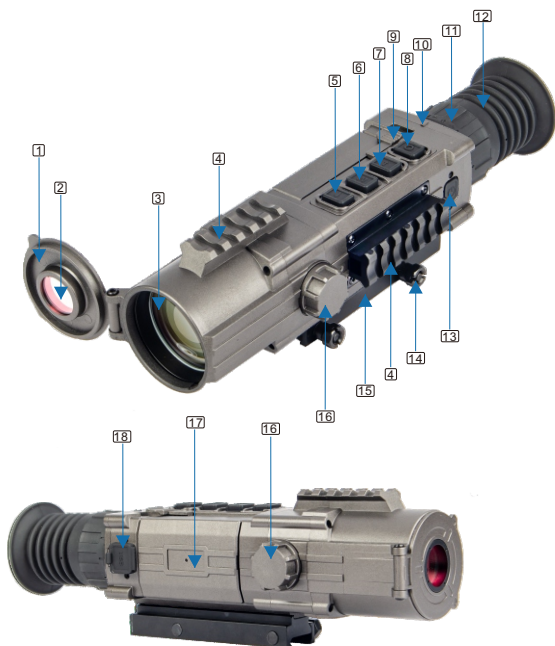
Digital Night Vision Scope (FHD)
user's manual
Model: **NVR10**

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- | | |
|--------------------------------|-------------------------------|
| 1: Objective lens cover | 2: Filter |
| 3: Objective lens | |
| 4: Picatinny mount | 5: Down operation button |
| 6: M menu operation button | 7: Up operation button |
| 8: Confirm operation button | 9: Battery pack release lever |
| 10: Zero diopter mark | |
| 11: Diopter knob | 13: Power switch button |
| 12: Eyepiece | 15: Mount |
| 14: The locking screw of mount | 16: Focus knob |
| 17: Battery pack | 18: USB output interface |

Name: Digital Night Vision Scope (FHD)

Model: NVR10

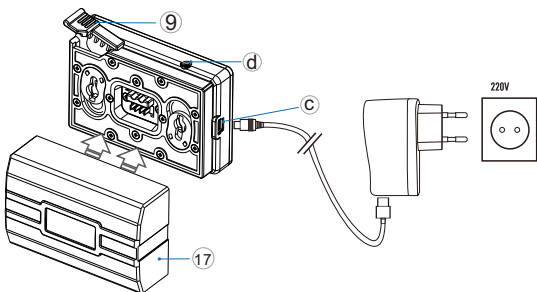
Performance characteristics:

- ◆ This product can be used during the day and night, and the magnification is 4X~12X.
- ◆ In order to obtain a better full-color image, the device is equipped with an infrared filter on the objective lens, the infrared filter should be turned on when using at night;
- ◆ If the image is still not clear enough, an infrared lighting flashlight needs to be added;
- ◆ Power supply: This product uses a dedicated removable rechargeable battery with a capacity of 4400mAh;
- ◆ Working hours: It can be used for more than 12 hours when WiFi is turned on, and it can be used for more than 16 hour when WiFi is not turned on
- ◆ This machine built-in WiFi module, which can communication with the APP, installed on the mobile device , it can realize functions such as recording and taking pictures in the APP;
- ◆ This product adopts 1080P ultra-low illumination detector;
- ◆ This product is the best auxiliary tool for human vision extension.

Battery charging

The night vision scope battery is a special battery, which can provide more than 12-16 hours of use. Before using it for the first time, remember to charge the battery pack. Battery pack charging method:

- a) Lift the operating joystick ⑨ and take out the battery pack;
- b) Adjust the positive and negative direction of the battery, and install the battery on the special charger;
- c) Connect the battery charger to the power adapter with a Mini USB cable, and then Connecting the power supply;
- d) After the connection is successful, the power indicator will light up, and the indicator light will be red when charging, and it will go out when fully charged;



Install the battery

- ◆ This product uses a dedicated removable rechargeable battery with a capacity of 4400mAh,
- ◆ It is recommended to use the battery charger included in the original package for best performance.

◆ Install/remove battery:


1. Installation

- a) Prepare the battery pack (17)
- b) Lift up the knob (9), adjust the battery in the positive and negative direction, install the battery to the Use the slot. (There is no gap when Properly connected)..

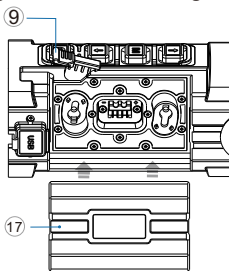
c) Press the battery pack and press the joystick (9).

2. Disassemble


- a) Lift up the knob (9).
- b) Pull out the battery pack.

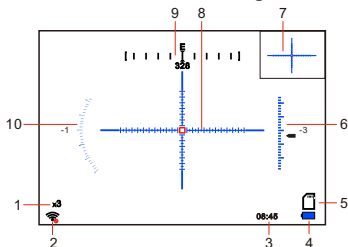
Press the button  to turn on the night vision scope, if the built-in screen is not lit, make sure that the battery pack is tightly pressed and meet the required minimum working voltage, Then start the test until the device is working normally.

if you cannot turn on the device, please remove the battery pack again and install the battery to charge (See the detailed steps "Battery charging"), wait for the red indicator light to go out that complete the charging, and take it again to Install the battery pack on the device.




Introduction of power-on And display function icon

- ◆ Press the power button , watch from the eyepiece eyecup 9 and see that the internal display screen lights up,
- ◆ The content displayed on the display is shown in the figure below, and the device enters the normal working state.




- 1.. Digital magnification display 2. WIFI state a) WIFI closed state
b) WIFI open state
c) WIFI connection state
3. Time 4. Battery power 5. SD card state 6. Electronic gyroscope (device up and down tilt angle status)
7. Picture-in-picture display 8. Reticle 9. Electronic compass display
10. Electronic gyroscope (device left and right deviation angle status)

Power off

No matter what state the device is in, press and hold the power button  (3 seconds) to shut down the device



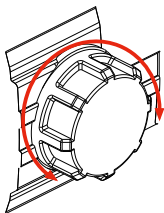
Diopter adjustment

- ◆ Press the button  once to turn on the device. Observe from the eyepiece 9, and the display screen will light up;
- ◆ After the machine is turned on, the image is a color image, which is suitable for observation and use during the day;
- ◆ When using in a darker environment at night, if you cannot see clearly, you need to open the objective lens cover and turn on the infrared flashlight at the same time. At this time, the product image will be automatically Change to black and white

- ◆ Adjust the diopter knob ⑬ 11 to adjust the positive or negative diopter to adapt to different eyesight, You can clearly observe the image displayed on the display screen.
 - ◆ Due to different eyesight, the images and text on the display screen may not be clearly seen. If you feel that the images and text on the display are not clear. Please adjust the diopter adjustment Knob 11, by changing the diopter until the display can be clearly observed .
- 【Note】 : The device has a limited diopter adjustment knob 11 range. In the whole process that do not damage by exceeding the limit position Diopter adjustment knob.

Focus

1. Adjust the objective lens focusing wheel ⑬;
2. Rotate left or right to adjust until the image become clear;



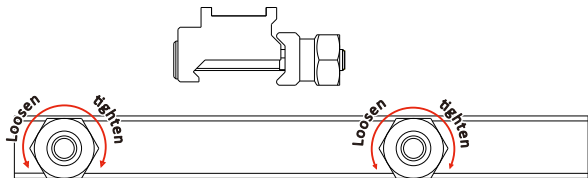
The introduction of mount connection Method and adaptability

The instruction of mount :






The device is equipped with mount that fit MIL-STD-1913 standard Picatinny rail;

Connection steps:



1. Loosen the two fixing screws;
2. Put the mounting parts on the Picatinny rail so that the bolts and the Picatinny rail's slots are aligned. Check the eyepiece and adjust it to the proper position;
3. Tighten the mounting screws;



Detailed introduction of Product function key control

Button	Product interface	Click on	Press
	No content	Boot up	Shut down
	Main interface	Start/Stop recording	Shut down
	Menu interface	Confirm option	Shut down
	Playback interface	Play/Pause Confirm option	Shut down
	Main interface	Start/Stop recording	
	Menu interface	Confirm option	
	Playback interface	Play/Pause Confirm option	
	Main interface	Exit digital zoom	Open/close
	Menu interface	Toggle options Change value	
	Playback interface	Switch picture/ video file Fast forward the video is playing	
	Main interface	Open the menu	Enter the playback interface
	Menu interface	Exit menu switch options	
	Playback interface	Set picture/video file	Back to Home page
	Main interface	Digital zoom	Enter/exit ranging
	Menu interface	Toggle options Change value	
	Playback interface	Switch picture/video file Rewind the video being played	


Video shooting

- ◆ Click the button  to enter the recording state, at this time the upper left corner of the screen will be red Color display video duration;
- ◆ Press again  to end the video recording, and the machine will store the video files in the SD card;
- ◆ The "loop recording" function in the menu can set the length of a single video file; the video resolution is 1080P.













Video playback operation

- ◆ Long press  to enter the video file playback interface, press  to play the video, press button   Fast forward and fast rewind operation;
- ◆ Press the button   to switch the playback video, press and hold the button  (3 seconds) to exit the playback interface.

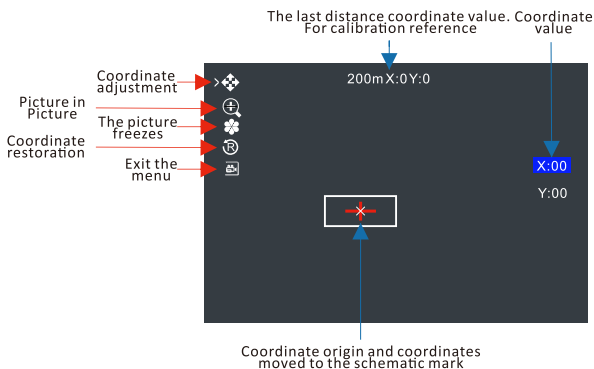
Calibration

- ◆ 1. Select "reticle ADJ" in the menu interface and press  to enter the calibration of different distance. There will be four distance options: 0-50m, 0-100m, 0-200m, 0-300m, select according to the range of shooting target (to help users calibrate in the fastest time);



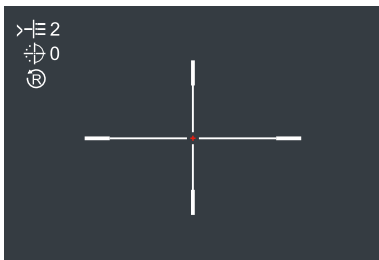
- ◆ 2. After selecting the distance, enter the reticle adjustment interface, adjust the XY coordinates to align with the bullet hole position Set, press   to move X coordinate, press   to select Y coordinate, press  to move Moving Y coordinate (one XY coordinate unit = 1/5 mil), press the button  after the adjustment is completed Save the reticle coordinates and switch to ;
- ◆ 3.  It is the picture-in-picture function of auxiliary calibration. After selecting it, press the button  to open the picture-in-picture function, this function is that Magnify the image where the reticle is aligned to assist calibration Press the button  to close the picture-in-picture function, and press the button  to switch .













- ◆ 4. It is the screen freeze function of auxiliary calibration, press the button to open the screen freeze function, this function can freeze the displayed image, avoid image shaking, and assist in calibration, press the button to turn off the screen freeze function, press the button to switch ;
- ◆ 5. It is the function of resetting the coordinates to zero. After selecting, press the button to change the XY coordinates of the reticle. Return the value to zero, press the button to switch ;
- ◆ 6. It is exit function, select and press the button to exit "Reticle ADJ" sub-menu returns to the main interface;
- ◆ 7. After performing the correct operation according to the above steps, the calibration should be completed at this time.
If there is still a deviation, please return to step 1 to adjust again.
[Note:] The X and Y coordinate values displayed on the screen indicate the offset from the image center. One XY coordinate unit = 1/5 mil, the zero adjustment process can refer to the upper one at the top of the interface Zero distance coordinate.





The selection of reticle's type and color




- ◆ 1. Select "Reticle Setting" in the menu interface, and press button to enter the reticle setting submenu;



- ◆ 2. Select the icon , press   to switch the type of reticle, select then press  to confirm and switch to ;
- ◆ 3. Select the icon , press the button   to switch the color of the reticle, select then press  to confirm and switch to ;
- ◆ 4. Select the icon , press  to save and exit to return to the menu.


WIFI on and off

- ◆ 1. Select "WIFI" in the menu interface, press  to enter to choose whether to turn on WIFI Option submenu;
- ◆ 2. WIFI account (SSID) and password (WPA2) will be displayed after opening;
- ◆ 3. Use a mobile phone or other electronic devices to search for the product WIFI (the name is SSID which is displayed on the screen when wifi turned on: such as "NVT_CARDxxxxxxxx", the default password is "12345678");
- ◆ 4. After the mobile phone is successfully connected to WIFI, open the app to transfer images in real time, After successfully transfer images that the product time will be synchronized with the phone time.
- ◆ 5. Press  during the connection process to disconnect the WIFI connection;




[Note] The WIFI icon in the lower left corner of the main interface will change according to the status of wifi, respectively Is closed- , open- , connecting- 

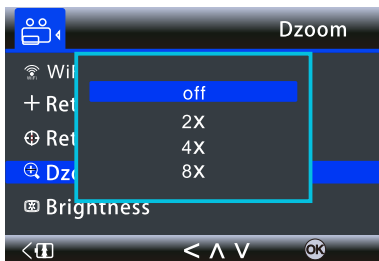


Range selection


- ◆ Select "range selection" in the menu interface and press  to enter the range selection

Continuous zoom

- ◆ Select "Dzoom" in the menu interface and press  to enter continuous zoom selection Submenu;
- ◆ The digital zoom of this machine is 3 times, the digital zoom is based on the optical magnification 3 times larger, press the button  for digital zoom, press the button  to exit digital zoom;
- ◆ The option in the "Dzoom" menu defines the button when performing digital zoom, You need to press several times to achieve the maximum 3 times digital zoom.




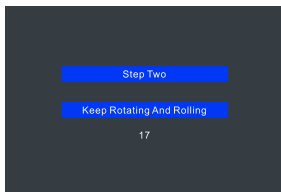
Brightness

- ◆ Select "Brightness" in the menu interface and press  to enter the screen brightness selection submenu;
- ◆ Divided into 1-9, can be adjusted according to the use environment and personal habits.




Electronic compass calibration

- ◆ 1. Select "Compass Calibration" in the menu interface and press  to enter the electronic compass calibration submenu;
- ◆ 2. The first step: last for 10 seconds, place the device horizontally according to the instructions, in order to ensure the accurate calibration, avoid electromagnetic interference around the device;
- ◆ 3. The second step: last for 20 seconds, follow the instructions to tilt the device to the left and right, and rotate it up and down, ensure calibration and avoid electromagnetic interference around the product;
- ◆ 4. There are two steps in the calibration process, lasting 30 seconds, and the calibration will be completed after following the instructions.




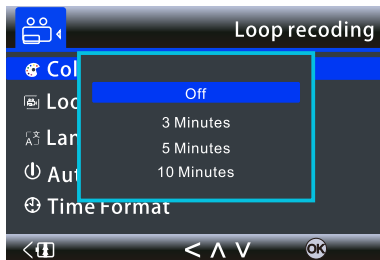
Color mode selection

- ◆ Select "Color" in the menu interface, press the button  to enter the color mode selection submenu;
- ◆ Includes four color modes: Normal, Black&White, Sepia, and Green, Can be adjusted according to the use environment and personal habits.




Loop recording

- ◆ Select "Loop Recording" in the menu interface, press the button  to enter the loop Recording selection sub-menu, This submenu can select the length of the recorded video;
- ◆ Divided into four options: off, 3 minutes, 5 minutes, and 10 minutes, set to off, The file saved as one video file . When the other three options are selected, the file saved in each recording is automatically divided into several small files according to the duration of the option.




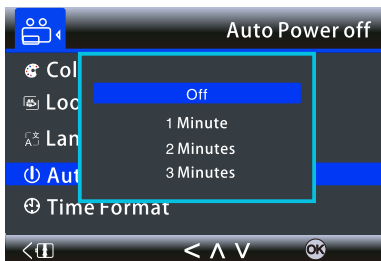
Language Setting

- ◆ Select "Language Settings" in the menu interface, press the button  to enter the language setting sub-menu;
- ◆ The supported languages of this device are: English, Simplified Chinese, French, Spanish, German, etc.




Automatic power off

- ◆ Select "Auto Power Off" in the menu interface, press the button  to enter the auto power off time selection sub-menu;
- ◆ The option "Off" means that the machine will not shut down automatically;
- ◆ The options "1 minute", "2 minutes", "3 minutes", "5 minutes" and "10 minutes" mean that the machine will automatically shut down if there is no operation within the set time.







Time Format

- ◆ Select "Time Format" in the menu interface, press the button  to enter the time format selection submenu;
- ◆ The options "24H", "12H", users can choose according to their habits.




Date/Time

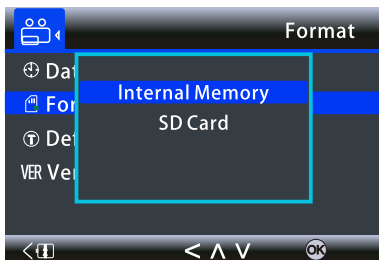
- ◆ Select "Date/Time" in the menu interface, Press the button  to enter the time format selection submenu;
- ◆ Press button  to control the selection cursor bar to move among the setting items;
- ◆ Press the button  to change the parameter value of the cursor bar position;
- ◆ After confirming, press the button  to exit the date/time setting submenu.

[Note] The mobile phone or electronic product connected to the the WIFI of device , after opening the app to transfer the image successfully, the device time will be synchronized with the phone or electronic product's time;





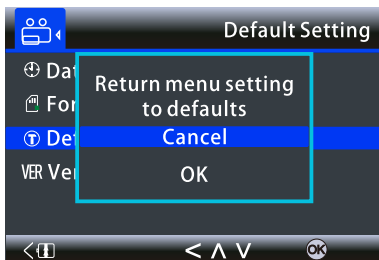
Format

- ◆ Select "Format" in the menu interface, press the button  to enter the format setting sub-menu;
- ◆ The function is used to format the internal memory or SD card .




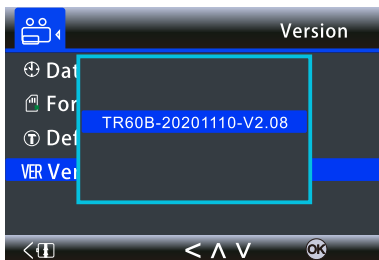
Default Settings

- ◆ Select "Default Settings" in the menu interface, press the button  to select whether to restore to the default setting;
- ◆ Options "Confirm", "Cancel", press the button  to confirm and restore to the factory default settings.



VER version number

- ◆ Select "Version" in the menu interface, press the button  to view the current software version.



Maintenance

It is recommended to maintain the product properly to ensure its service life. Attempts to disassemble or repair the device will void the warranty. It is recommended that when the machine gets dirty, wipe it clean with a dry or slightly damp cloth. Blow away the dust and debris on all optical components, and then clean the lens with a lens cleaning cloth. To remove oil stains or dry water spots, apply a small amount of denatured alcohol to the lens cloth or cotton swab. Clean the surface of the lens and let it dry. Finally, exhale again to clean the lens. No further maintenance is required.

Troubleshooting

Do not send the product back without prior authorization. Doing so may cause the product to be lost due to a variety of reasons, Sending it to the wrong address and accidental packages with other problems related to it.

◆The device will not be able to turn on:

1. This product uses special batteries, please be sure to use factory-configured batteries and chargers;
2. Check whether the battery power is sufficient. If necessary, please reinstall the battery;

◆The infrared illuminator cannot be used:

Turn on the infrared light, and adjust the display brightness. If the infrared light is not detected, the infrared may need to be returned for repair or change the battery;

◆The image is darker:

Make sure to open the filter cover on the objective lens and turn on the infrared illuminator. Adjust the brightness of the display screen and the brightness of the infrared illuminator accordingly to obtain a bright and clear image.

◆There are bright or black spots on the display:

The dots that appear on the display are caused by sensor production technology, not defects.

◆The image is not in focus:

1. Make sure that there is no dust or condensation on the objective lens or eyepiece;
2. Make sure to adjust the diopter setting of the eyepiece according to your eyesight until you can see the content on the internal display of the device clearly;
3. Adjust the focus wheel on the side of the objective lens after making sure to see the contents of the display clearly, Adjust the focus for different viewing distances;

◆The image flickers:

This is common if the unit is watching or pointing in the direction of a bright light source. Please stop looking at bright light sources immediately. If it flickers under normal observation conditions, it may be caused by low battery power. Please charge it in time.

Firmware update

Please contact the purchaser for updates and instructions.

Basic parameters

Category	Project	Parameter value
Optical properties	Magnification	4X~12X
	The diameter of objective	50mm
	Field of view(4X), m/1000	7.15° , 131m/1000m
	Diopter of eyepiece	±5SD
	Low light observation distance	2m~∞
	Total darkness observation distance	2m~600m

The standard configuration

Name	Quantity
Usb cable	1
Color box	1
Convenient soft bag	1
External power adapter	1
Separate power charger	1
user's manual	1
Dedicated battery pack	1
Wiping cloth	1

Use environment and precautions

The night vision device should be stored in a soft bag, and the operating environment should be -40°C ~ $+55^{\circ}\text{C}$, and the relative humidity should not exceed 80%.

The night vision device should be stored in a clean and dry place to avoid moisture, mold, heavy pressure, mechanical damage, humidity and solar radiation.

Try to avoid rain or fog , prevent falling, bumping, and bumping.

When you find that the image on the display screen is jumping, the green grid lines or the screen 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 the optical surface of the objective lens, eyepiece, and laser illuminator, you should blow off small grit and dust first, and 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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