## Contents

# PQ1W MANUAL

## Digital Night Vision Riflescope（HD）

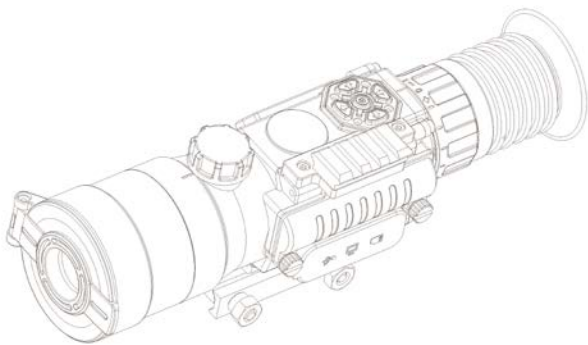Model：PQ1W

【Contents】

## Contents

## PRODUCT DESCRIPTION



【**Name**】**Digital Night Vision Riflescope**（**HD**）
【**Model**】 **PQ1W**
【**Features**】
◆This product can be used in day and night, with magnification from 3.7X to 11X.
◆Tipped up infrared filter: cover the objective lens to restore true color in the daylight, tipped up while using at night
◆Turn on the infrared light at the night to capture clearer image;

## PRODUCT DESCRIPTION

◆Power supply: a 18650 large capacity rechargeable lithium battery
◆Working time: 6 (Wi-fi on) ~ 8 (Wi-fi off) hours
◆Connected to APP (android system) installed on the mobile devices, transmitting real-time images and videos, controlling on devices;
◆1080P(HD) detector, operating at low illumination condition;
◆The product is the best auxiliary tool for human vision extension.

# DIAGRAM

1 2 3 4 5 6 7 8

20 19 18 17 16 15 14 13 12 11 10 9
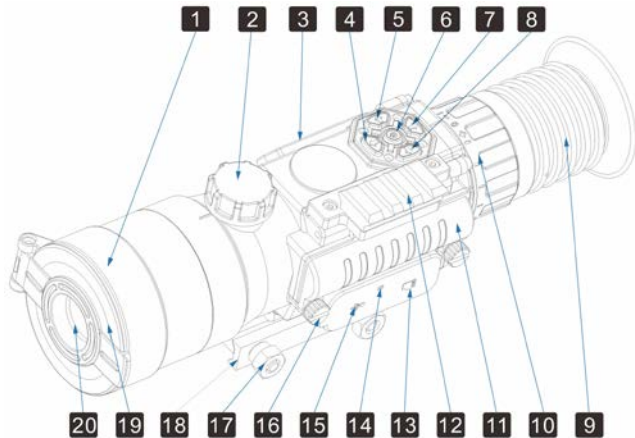
1.Objective lens   2. Focus wheel   3.WIFI module
4-8. Menu button   9.Eyepieces   10. Diopter wheel
11. Battery cover     12. Mounting base (optional)     13.
SD card slot   14. Indicator   15. Video output interface
16. Battery cover knob   17. Base screw 18. Picatinny
mount   19. Objective lens cover   20. Infrared filter

# OPERATING INSTRUCTIONS

## 【Install battery】

◆One 18650 3350mAh battery (included);

1. Unscrew the battery cover off counter clockwise.

2. Put the battery into the slot in the direction indicated.

3. Screw the battery cover clockwise until fully tightened.

Unscrew cap off. Insert a piece of battery with the negative end to the spring. Then screw the cap tightly. Turn on the riflescope by pressing button #8 ⏻. If the built-in screen is not lit up, please make sure that the cap is tightened, the battery is in correct direction, storing power reached minimum voltage required. Then boot test until the apparatus works normally.

# OPERATING INSTRUCTIONS

## 【Power on and Viewfinder】
◆Long press button（3 seconds）⏻ ，From the eyepiece eyecup 9, you can see that the internal display screen lights up, the display shows the normal icon shown in the figure below, and the machine enters the normal working state.

E
328

x9

08:45
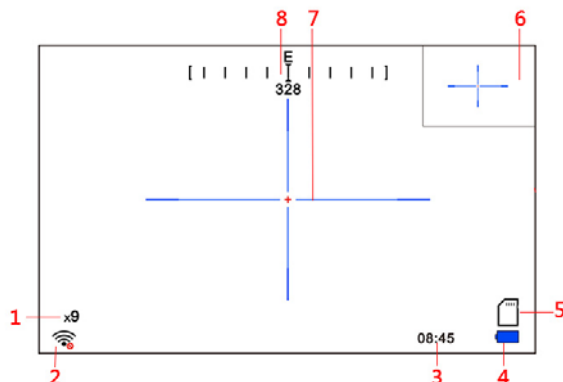
1. Magnification 2. WIFI status 3. Time
4. Battery status 5. Memory card status
6. Picture-In-Picture 7. Reticle 8. Electronic compass

# OPERATING INSTRUCTIONS

## 【Power off】
No matter what state the machine is in, press and hold the power button (3 seconds) ⏻ to shut down the machine.

## 【Observation Scenery】
◆Long press button ⏻ （3 seconds） to turn on the machine. Observing from the eye mask 9, the display screen is lit;
◆After the machine is turned on, the image is a color image, suitable for observation and use during the day;
◆When it is used 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. The product image will switch to Black and White.

## 【Diopter Adjustment】
The eyepiece (1) is designed to rotate to adjust for diopter. The diopter is the measurement of the eye's curvature. People's eyes are all curved differently. If the display does not clear,

## OPERATING INSTRUCTIONS

rotate the eyepiece until the reticle becomes clear and focused. This adjustment should stay the same unless the unit's operator changes.

【**Focus Adjustment**】
　◆1. Locate the focus adjustment.
　◆2. Turn the adjustment(2) left or right until the image becomes clear.
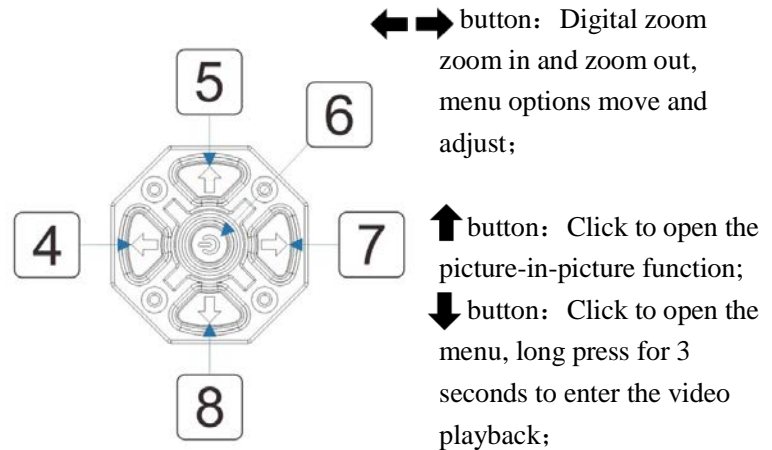
【**Mounting**】
　The unit is fitted with a Picatinny mount.
　To attach:
1. Loosen both mount thumbscrews.
2. Place mount on to Picatinny rail aligning the bolts　with the Picatinny rail slots. Check eye relief and adjust to the proper position.
3. Tighten thumbscrews .

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## OPERATING INSTRUCTIONS

【**Function button introduction**】



◀▶ button：Digital zoom zoom in and zoom out, menu options move and adjust；

↑ button：Click to open the picture-in-picture function；

↓ button：Click to open the menu, long press for 3 seconds to enter the video playback；

⏻ button：Power on button, click to record, long press for 3 seconds to turn on and off.

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## OPERATING INSTRUCTIONS

【**Video shooting**】
　◆Click the button　⏻ Automatically enter the recording state, at this time, the upper left corner of the screen will display the recording time in red；
　◆Press again ⏻ , 　 the video is over, the machine automatically stores the video file in the SD card；
　◆The "loop recording" function in the menu can set the length of a single video file saved by recording；
　Video resolution is 1080P.

【**Video playback**】
　◆Long press the button↓, 　Enter the video file playback interface, 　press the button⏻ play video，Press the button◀▶ to forward and rewind；
　◆press the button ◀▶ Switch playback video，press the button↑ exit the playback interface.

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## OPERATING INSTRUCTIONS

【**Calibration**】
　◆1. Select "Reticle Setting" in the menu interface，press the button ⏻ Enter calibration，At this time, there will be five distance options of 0-99m, 100-199m, 200-299m, 300-399m, 400-499m, which are selected according to the shooting target distance range (to help users calibrate in the fastest time)；



　◆2. Enter the "Reticle Setting" interface, adjust the XY coordinates to align with the↓↑ hole position, ◀▶ Move the X coordinate, move the Y coordinate (one XY coordinate unit = 1/4 mil), press to save after the adjustment is completed；

# OPERATING INSTRUCTIONS

◆3. Check icon, Ⓡ press the button ⬅ You can restore the position of the reticle to the coordinate origin;

◆4. After completing the calibration, press the button ⏻ Toggle selected icon 🔲, press the button ⬅ To return to the menu;

◆5. After performing the correct operation according to the above steps, the calibration should be completed at this time. If there is still deviation, please go back to step 1 and adjust again。

【**note**】The X and Y coordinate values displayed on the screen indicate the offset from the center of the screen.

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# OPERATING INSTRUCTIONS

## 【**Change the reticle style and color**】

◆1. Select "Reticle Setting" in the menu interface, press the button ⏻ Enter the crosshair setting submenu;
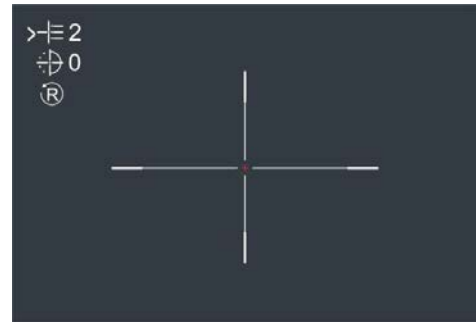
◆2. Check icon ─╞, press the button ⬅ ➡ Toggle cross-hair type, Toggle cross-hair type⏻

◆3. Check icon ⊹0, press the button ⬅ ➡ Toggle the crosshair color, Select button ⏻ to confirm;

◆4. Press ⏻ again to confirm and save and exit to return to the menu。

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# OPERATING INSTRUCTIONS

## 【**WIFI on and off**】

◆Select in the menu interface "WIFI", Press the button ⏻ to enter the select whether to open the WIFI option submenu;

◆After opening, the WIFI account (SSID) and password (WP2A) will be displayed;

◆After the mobile phone is successfully connected to WIFI, open the app to transmit the image in real time.

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# OPERATING INSTRUCTIONS

## 【**Digital zoom**】

◆Select "Dzoom" in the menu interface and press ⏻ to enter the digital zoom selection submenu;

◆The digital zoom factor of this machine is 3 times, that is, it zooms in 3 times on the basis of optical magnification. This machine subdivides it into 10 levels;

◆For options in the digital zoom menu, when you press the right button ➡ for digital zoom, you need to press it several times to reach the maximum 3x digital magnification.

## OPERATING INSTRUCTIONS

【**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.

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## OPERATING INSTRUCTIONS

【**Color mode settings**】

◆Select "Color" in the menu interface, and press ⏻ to enter the color mode selection submenu;

◆It includes four color modes: normal, black and white, sepia, and green, which can be adjusted according to the environment and personal usage habits.

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## OPERATING INSTRUCTIONS

【**Loop recording**】

◆Select " Loop Recording" in the menu interface and press ⏻ to enter the video recording length selection submenu;

◆There are four options: off, 3 minutes, 5 minutes, and 10 minutes. When set to off, the file saved for each recording is a separate 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.

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## OPERATING INSTRUCTIONS

【**language settings**】

◆Select "Language" in the menu interface and press ⏻ to enter the language setting submenu;

◆The supported languages of this machine are: English, Simplified Chinese, French, Spanish, German, etc.

## OPERATING INSTRUCTIONS

### 【Auto Power Off】

◆Select "Auto Power Off" in the menu interface and press ⏻ the button to enter the auto power off time selection submenu;

◆The option "Off" means that the machine will not shut down automatically;

◆The options "3 minutes", "5 minutes" and "10 minutes" mean that the machine will automatically shut down if there is no operation within the set time.
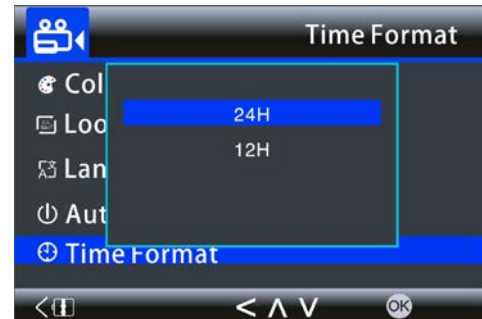
| | Auto Power off |
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| ✆ Col | |
| ▤ Loo | Off |
| 🎴 Lan | 1 Minute |
| | 2 Minutes |
| ⏻ Aut | 3 Minutes |
| ⊕ Time Format | |
| ‹▥ | < Λ V    OK |

## OPERATING INSTRUCTIONS

### 【Time format】

◆Select "Time Format" in the menu interface, and press ⏻ to enter the time format selection submenu;

◆The options "24H" and "12H", users can choose according to your habits.

| | Time Format |
|---|---|
| 🎥◀ | |
| ✆ Col | |
| ▤ Loo | 24H |
| 🎴 Lan | 12H |
| ⏻ Aut | |
| ⊕ Time Format | |
| ‹▥ | < Λ V    OK |

## OPERATING INSTRUCTIONS

### 【Date/time】

◆Select "Date/Time" in the menu interface and press ⏻ to enter the date/time setting submenu;

◆⏻ The button controls the selection cursor bar to move between each setting item;

◆Left button ⬅ and right button ➡ Change the parameter value of the selected cursor bar position;

◆After confirming, press the button ⬇ once to exit the date/time setting submenu.

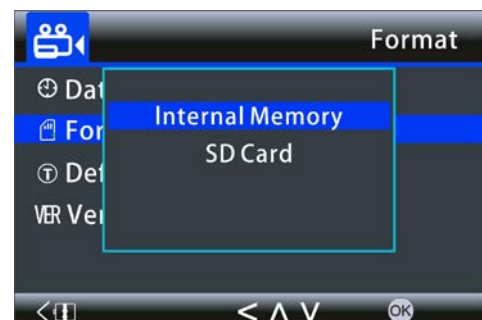| | Date/time |
|---|---|
| 🎥◀ | |
| ⊕ Dat | |
| 🖩 For | 2020 /01/01 |
| ⊤ Det | 00 : 17 : 03 |
| VER Ve | YY/MM/DD |
| ‹▥ | < Λ V    OK |

## OPERATING INSTRUCTIONS

### 【Format】

◆Select "Format" in the menu interface and press ⏻ to enter the format setting submenu;

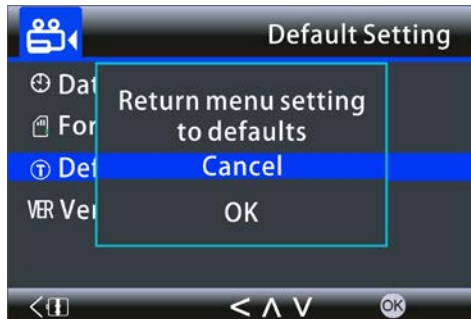◆Used to format the internal memory or SD card.

| | Format |
|---|---|
| 🎥◀ | |
| ⊕ Dat | |
| 🖩 For | Internal Memory |
| ⊤ Det | SD Card |
| VER Ve | |
| ‹▥ | < Λ V    OK |

## OPERATING INSTRUCTIONS

### 【Default setting】

◆Select "Default Settings" in the menu interface and press⏻ to choose whether to restore to the default settings;

◆Choose "Confirm", "Cancel", press ⏻ to confirm and restore to factory default settings.

## OPERATING INSTRUCTIONS

### 【VER version number】

◆Select "Version" in the menu interface and press⏻ to view the current software version.

## MAINTENANCE INSTRUCTIONS

### 【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 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 lens surface and let it dry. Finally, exhale again to clean the lens. No further maintenance is required.

### 【Troubleshooting】

Never ship back a product without getting proper authorization beforehand. Doing so could result in losing the product due to a multitude of reasons, i.e. sending it to the wrong address and other problems associated with unexpected packages.

## TROUBLESHOOTING

◆**The unit will not turn on**

1. Check the polarity of the batteries. Reinstall the batteries if necessary.

2. Clean the battery compartment contacts with denatured alcohol and a cotton swab.

3. Install fresh batteries.

◆**The IR illuminator will not turn on:**

1. Adjust the brightness of the IR. Adjust the display brightness. If no IR light is being detected the unit may need to be returned for service.

◆**The image is dark**

1. Make sure the lens caps on the objective lens is opened and the IR illuminator is on. Adjust the display brightness and the IR illuminator brightness accordingly to obtain a bright, clear image.

◆**There are light or black dots on the display:**

1. The presence of dots on the display is caused by sensor production technology and is not a defect. No action is required.

## TROUBLESHOOTING

◆**The image is not in focus:**

1. Make sure there is no dust or condensation covering the objective lens or eyepiece.

2. Adjust the focus ring near the objective lens to adjust focus for different viewing distances.

3. Make sure to adjust the diopter setting on the eyepiece for your specific vision.

◆**The image is flickering:**

1. This is common if the unit is viewing or pointing in the direction of a bright light source. Cease viewing the bright light source immediately. If flickering in normal dark conditions the unit may need to be returned for service.

【**Firmware Update**】

Please visit http://www.trgdtec.cn/support for updates and instructions.

## BASIC PARAMETERS

【**Basic parameters**】

| Type | Items | Parameter value |
|---|---|---|
| Optical performance | Magnification | 3.7X～11X |
| | Objective lens aperture | 50mm |
| | Field of view（3.7X），m/1000 | 8°,140m/1000m |
| | Eyepiece adjustment range | ±6 Diopter |
| | Low light observation distance | 2m～∞ |
| | Matte and black observation distance | ～600m |

## THE SANDARD CONFIGURATION

【**The standard configuration**】

| Name | Amount |
|---|---|
| USB cable | 1 |
| Color box | 1 |
| Portable soft case | 1 |
| External power adapter | 1 |
| Separate battery charger | 1 |
| user's manual | 1 |
| Infrared flashlight | 1 |
| Battery | 1 |
| Lens cloth | 1 |

## PRECAUTIONS

【**Use environment and precautions**】

The night vision device should be stored in a soft bag. The operating environment should be -30~+55℃, and the relative humidity should not exceed 80%.

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

Try to avoid rain or fog to 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 first blow off small grit and dust, 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.